

PALESTINE EXPLORATION QUARTERLY

Embodying the *Quarterly Statement*
of the Palestine Exploration Fund
and the *Bulletin* of the British
School of Archæology in Jerusalem

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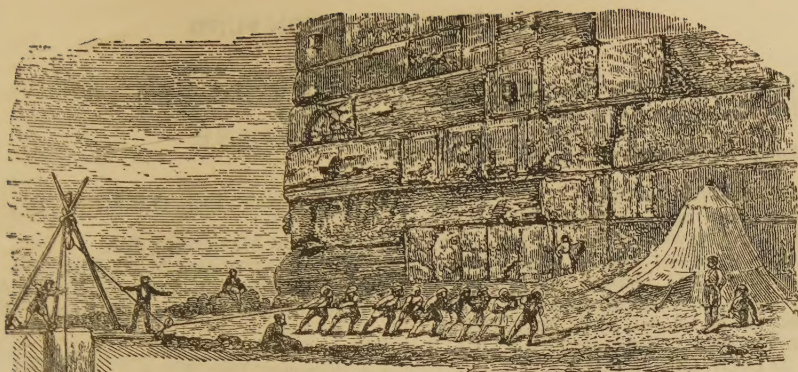
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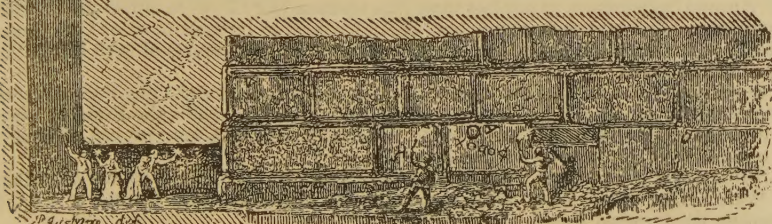
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THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

DURING the heat of summer field archaeologists rest from their labours with the spade, and occupy themselves with the very important task of acquainting the public with the results of their season's work. Mr. Starkey organized and carried through with his usual skill a most interesting exhibition of his latest campaign at Tell Duweir. The visitors were especially interested in a most admirable film which showed the work of excavation in actual operation. Mr. Starkey also gave a lecture at the Rooms of the Fund, on the occasion of the Annual Meeting of the Fund, on the relation of his work at Tell Duweir to the Old Testament. The bronze dagger of Hyksos date, which was one of the most important finds of this season's work, with its inscribed signs, has attracted much attention. (See Pl. VIII, Fig. 1, of this number.) The inscription is particularly interesting as showing a clear example of the survival of pictorial signs among purely linear signs as late as the Hyksos period.

The September number of *Antiquity* contains an important article on the Syrian city of Til-Barsib, by Mr. Mallowan. This city, the capital of the Aramaean state of Bit-Adini, first came into prominence in the time of Shalmaneser III, who captured the city and began the building of a palace there. The story of its excavation by a French expedition under the auspices of the Musée du Louvre has now been published by the well-known French archaeologists, MM. Thureau-Dangin and Dunand. Many important discoveries were made on the site, but the most important was that of the marvellous series

of wall paintings which, in the words of Mr. Mallowan, " must take their place as the earliest outstanding landmark in the history of ancient painting." Most of the originals have unfortunately perished, and it is not at present clear why it was not possible to preserve more than the few fragments which are now to be seen in the Louvre and the Aleppo Museum. But before the frescoes disappeared they were very carefully copied by a good artist so that it will be possible to study them in these excellent reproductions. They throw new light on the character of Assyrian art.

The proposals for the partition of Palestine have satisfied neither party to the dispute, and a satisfactory settlement seems as remote as ever. Canon Phythian-Adams has criticized the proposed partition on the ground that it is at variance with the natural lines of demarcation constituted by the physical character of the country. Mr. A. M. Hyamson, another member of the Fund, has also pointed out in the *Manchester Guardian* the special difficulties in relation to Jerusalem created by the proposals. In the course of his remarks Mr. Hyamson says, " the incorporation of the new Jerusalem in any Jewish State would mean placing a further not inappreciable Arab population under Jewish rule, which it would most intensely resent and against which it would be in a state of latent or open revolt. Moreover, to connect Jerusalem with the Jewish State a long and indefensible corridor, Jewish in allegiance, Arab in race and feeling, would also have to be added to the Jewish part of Palestine."

In this connection it may be interesting to reproduce, without comment, the comparative population figures for 1912 and 1937, as given by Mr. Guy in the same journal :

				1937	1912
Moslem	..	..	..	23,000	10,000
Christian	..	..	..	21,000	15,000
Jews	..	..	..	70,000	45,000
				114,000	70,000

A new and unexpected interest attaches to Bethlehem in the light of recent excavations in the bone-bearing beds of that place by Miss E. W. Gardner and Miss D. M. A. Bate. In 1934 the fossil remains of an elephant were discovered there, the first evidence of the former existence of this extinct species in this geographical region.

Since that date, as Miss Bate shows in the report appearing in *Nature* for 4th September of this year, the Bethlehem bone beds have yielded evidence of an extinct fossil fauna, which is not only almost entirely new to Palestine, but is also of earlier geological age than any found there hitherto. Further, from the gravels of these deposits have come "flints," which may prove to be the earliest trace of man in Palestine. These flints have been compared by experts with the much-discussed eoliths found by Mr. Reid Moir at Foxhall and Bramhall, and seem to point to the existence of pre-palaeolithic man in Palestine. Taken in conjunction with the discoveries of Miss Garrod, already described in this journal, this discovery at Bethlehem may prove to be of first-rate importance in connection with the problem of the distribution of early man.

FORTHCOMING P.E.F. LECTURES. Wednesday, 27th October. at 4.30 p.m. THE FORTY YEARS' WANDERINGS OF THE ISRAELITES. By MAJOR C. S. JARVIS.

Wednesday, 24th November, at 4.30 p.m. NEW TEXTS FROM RAS SHAMRA AND THEIR SIGNIFICANCE. By PROFESSOR S. H. HOOKE.

Wednesday, 26th January, at 4.30 p.m. ARCHAEOLOGICAL METHODS IN PALESTINE. By MISS KATHLEEN KENYON, M.A., F.S.A.

These lectures are held at 2 Hinde Street, Manchester Square, W.1, and admission is free to members and interested friends.

SUBSCRIBERS IN PALESTINE AND TRANSJORDAN: Please note that Dr. E. W. G. Masterman, of the English Hospital, Es Salt, has kindly consented to act as Hon. Local Secretary in succession to the late Lady Watson, and will be pleased to receive subscriptions on behalf of the P.E.F.

A notable event in modern Palestinian scholarship is the recent publication at Tel Aviv of a critical edition of the Apocrypha and Pseudepigrapha in Hebrew. The work, which is in two volumes, has been issued with the aid of the Bialik Foundation under the general editorship of Professor Abraham Kahana. It follows the model of the corresponding English edition by Charles, and is likewise the product of co-operative effort. The translation of each book is accompanied by a lengthy critical introduction (including Bibliography) and by a running commentary.

The difficulty of the task, and hence the success of its accomplishment, will be more readily appreciated when it is remembered that several of the Pseudepigrapha are written in a stilted Hellenistic Greek far removed from Semitic idiom, thereby increasing considerably the labour of translation.

The work has the added value, apart from its intrinsic merits, of introducing into Hebrew studies the best principles of Western critical research, and Professor Kahana, who has already produced the well-known *Perush Mada'i* (Scientific Commentary) to the Old Testament in the same style, is to be warmly congratulated.

For those who are interested, the address of the publishers is: Meqoroth Publishers, 15 Rambam Street, Tel Aviv, Palestine.

Churches at Bosra and Samaria-Sebaste: Supplementary Paper No. 4 of the British School of Archaeology in Jerusalem has been recently published at 5s. (see Review in *Quarterly*, July, 1937). The price of this work to annual subscribers of £1 1s. to either the P.E.F. or the B.S.A.J. is 2s. 6d. Orders should be sent to the Secretary, British School of Archaeology in Jerusalem, 2 Hinde Street, Manchester Square, London, W.1.

The Library of the British School of Archaeology in Jerusalem. The Director announces further progress with the bookbinding since his report in the July *Quarterly*. Between 1st January and 30th June, 1937, there have been :

Newly bound	..	..	..	..	182 vols.
Binding corrected	..	..	..	..	9 „
Title corrected or amplified	..	..	..	..	17 „
Repaired or rebound	..	..	..	..	9 „
Total put in order					217 vols.

THE LACHISH LETTERS (LACHISH I). The Wellcome Marston Archaeological Research Expedition to the Near East announce the publication at an early date by the Trustees of the late Sir Henry Wellcome of their important volume dealing with the discovery, transliteration and translation of the eighteen inscribed potsherds, found during the excavations at Tell ed Duweir (Lachish) during the years 1934 and 1935, and assigned to the early part of the sixth century B.C.

Professor H. Torczyner is responsible for the epigraphical section, and Mr. J. L. Starkey, L. Harding and A. Lewis are each contributors to the volume, which is being produced by the Oxford University Press at 25s.

THE SYNAGOGUE AND THE DIASPORA. By Dr. Helen Rosenau. The title of this article, which appeared in *QUARTERLY*, July, 1937, should have been amplified by the addition that it was a *Lecture delivered at the P.E.F. rooms on 28th January, 1937.*

EXCAVATIONS AT TELL ED DUWEIR

THE WELLCOME MARSTON ARCHAEOLOGICAL RESEARCH
EXPEDITION TO THE NEAR EAST

*Lecture given at the Wellcome Research Institute, London,
16th July, 1937*

BY J. L. STARKEY

THE Wellcome Marston Archaeological Research Expedition to the Near East has now completed its fifth season at Lachish. Despite initial fears that the political conditions in Palestine might make work inadvisable, the winter has been a most peaceful one for the southern district, and lines of communication with the seaboard at Gaza, and the hill centres of Jerusalem and Hebron, were maintained without any untoward incident. The greatest troubles have been due to the abnormal rainfall, which has been general in Palestine—far in excess of anything the Expedition has known in the last ten years. These conditions have slowed down work considerably, it is impossible to sieve or to make a minute examination of the soil when it is saturated. Our loss has certainly been the agriculturist's gain, and the summer crops of maize and water melons should be exceptionally good, and may permit some of our poorer neighbours to extricate themselves from the hands of the moneylenders.

In accordance with our usual policy, we did our quota of work in ground beyond the fortifications of the ancient city. We started early in the season at the head of the western valley, following on the general clearance to bedrock of the saddle area, which is now completed.

Here the alluvium and boulders were piled to a depth of eight feet over bedrock, and our deep workings were completely flooded out by the first rains. It is necessary that this area should be fully explored, before it can be used as a dump for the newly exposed low roadway levels within the city gate.

Our Arab workers were then put on to examine the better drained ground, flanking the west side of the stream bed of the Wadi Ghafr, further to the north. There were indications that a cemetery of the Late Bronze Age might exist here, the actual spot selected for the initial exploration was controlled, however, by seasonal agricultural requirements; we worked adjoining newly-ploughed furrows and after a few days we found that we were uncovering the surface of a Roman road. It consisted of a broad carriage way, flanked to the west by an alignment of large stones, while its other side was bounded by the foundations of a stone wall, which suggests the base of a small aqueduct. East of the wall, and parallel with the roadway, was a narrow footpath, with a rough stone curb. The roadway follows the line of a well-beaten camel track in a south-westerly direction. Where it rises up out of the valley, it skirts the ruins of an ancient dam, known to-day as Birket en Nebi, "Pool of the Prophet," and it may be that the water channel was used in connection with this reservoir. Southward beyond this point the road can now be identified by alignments of stones for over a mile.

From the road surface we have collected coins, mostly of the third and fourth centuries A.D., including a small bronze of Arcadius, 395 A.D., Licinius, 307 A.D. and Constantine I, 306 A.D. The discovery of this Roman road fills a lacuna in our topographical evidence for the identification of our site with Lachish. It has often been pointed out that Lachish should be six Roman miles from Beit Jibrin, as Eusebius states that Lachish was at the sixth mile on the way south, to Daroma from Eleutheropolis (Beit Jibrin). We have always wondered where the Roman road was that Eusebius had in mind, for obviously he was thinking of distances in terms of the road system of the period. The line that the road takes from Lachish to Beit Jibrin has not yet been traced; it seems to be, in the main, a valley road, and much of it must lie buried under the alluvium, which, as we see in the section we have just uncovered, may be some five feet under the plough; such deposition emphasizes the extent of the denudation of soil from the foothills since late Roman times.

The base of the slopes at the north-east corner of the Tell was next investigated. Here again the ground was well drained,

and we were able to augment our working gangs by labour that had been held up on Tell work by the state of the ground. One of the dominating reasons for opening this new area was to establish the exact position of the Hyksos fosse. An interesting surface find from this region was a small steatite scarab, engraved with the name of one of the lesser known kings of the sixteenth dynasty, Aa-hetep-Ra, with the usual description "The good god, giving life." Scarabs of this king are rare, five only are so far recorded, and these constitute the only evidence of his existence. It indicates the close contact, in this dark period of Egyptian history, with patriarchal Palestine.

During our first two seasons, we cleared adjacent sections of the Hyksos moat at a point where it turned the north-west corner of the mound and presumably continued along the north side of the city.

As surface indications offered no clue to its position, we started low in the valley where the first outcrop of rock appeared. Very soon tombs were struck, and in the now exposed escarpment of eocene chalk three small quarries were found, which had been worked from Middle Bronze to Byzantine times. Almost all the rock-cut tombs in this region had been re-used and plundered anciently. One of the first to be found was a single chamber entered by a flight of steps; it contained pottery of the early Judæan kingdom with pieces of fine burnished ware; some two dozen heavy bronze bangles and anklets were recorded and a bow-backed fibula in the same metal. A glass scaraboid bears a figure, half human, half fish, with upraised arm, probably the fish god Dagon, or, if the human part is female, have we here the earliest representation of a mermaid? Besides some glass beads, in the same perfect condition as the scaraboid there were two beads in finely polished banded onyx, probably importations from Mesopotamia.

An unexpected surface find in this region was an oval scaraboid in banded carnelian quartz, beautifully polished and bearing on the underside three registers; the top one shows the winged uræus and the "ankh" sign, while the middle one bears five Hebrew letters of the name Shifatyahu, prefixed by the possessive L, meaning "To" or "For." The last register

has six letters, starting with the final letter of the previous name, and the second personal name is Asyahu. Apart from the interest of the names, this seal, I think, gives us the first example of the letter "teth" in the lapidary's script. The serpent and "ankh" occurring on a seal of a man whose name and parentage savour so strongly of orthodoxy, shows the indelible influence of Egyptian cults.

Close to this tomb, but rather lower down the slope, we came on to a stairway and outer chamber of a large triple chambered tomb of the late Hyksos period. The roof of the outer chamber had collapsed anciently, and as we took out the fallen rock, we were struck by the curious black staining on it. As we worked down, the walls were seen to be similarly coated, and when pottery fragments appeared, these—together with remains of human skeletons—afforded an explanation. The bones were in varying stages of calcination, all smashed, as was so much of the pottery, into minute pieces. It became increasingly clear that the contents of all three chambers had been rifled and then burnt *in situ*. The walls and roof of the two subsidiary rooms presented the same appearance, only here the deposit of soot on the walls was even plainer. One of the first small objects recovered was a large rectangular plaque in steatite, deeply engraved on both sides, showing crocodiles supporting a conventionalized palm tree. This seal is one of a hundred and ninety-two scarabs and seals (Pl. II, Fig. 1, and Pl. IV, Fig. 2) which escaped destruction, many such must have been reduced to powder, and the designs of some two dozen of those collected had been obliterated.

Fifty-four pottery vessels, in moderate condition, remain from the destruction of a total of some five hundred. The pottery ranges from quite early XVIth–XVIIth dynasty (with strong Hyksos contacts) down to the early thirteenth century B.C. (with the familiar decorative motifs of the Rameside period). A long period is also emphasized by the lamps; the series starts with the flat type with slightly pinched lip and inturned rim and goes on to the deeper forms with outturned rim and a long pinched lip for the wick.

The date assigned to the pottery is borne out by the many scarabs with Royal names; the Hyksos king Pepa, "Apophis" of classical writers, is represented by two examples, one show-

ing the fine spiral design so characteristic of the twelfth dynasty, the other more roughly cut with the same name and titles. These, with other design scarabs of the "Hyksos" period, may be survivals, although we must expect that the "Hyksos" style of design and cutting would have continued in use until well after the Thotmosside conquest. There is also a scarab of an official, who bears the title "Overseer of the Temple;" by its style it should be XIIIth dynasty, and it can be regarded as an heirloom.

The XVIIIth dynasty Pharaohs, represented by their scarabs, commence in this tomb with Thotmes III, whose conquests made Palestine part of the Egyptian Empire. Scarabs of his successors, Amenhetep II and Thotmes IV also occur, and as we should expect, the greatest number are of Amenhetep III's reign, as this was the peak of a prosperity which seems to have lasted throughout the period of Egyptian control. Though no royal names of the XIXth dynasty were found in this group, there were examples of design and style which are as late as the reign of Rameses II, such as the triad of Ra and Horus, either side of Amen. (Pl. II, Fig. 1.)

Deductions drawn from the absence of later royal names would be unjustified, as the contents of adjoining tombs show. Tomb 4011, although badly plundered, produced some pottery of the Ramesside era, six scarabs, one bearing the Sa Ra name of the Pharaoh Ay, Kheper-Kheperu-Ari-Ra. He was the high priest who came to the throne on the death of Tutankhamen, and who figures in the funerary scene on the walls of the inner chamber of the royal tomb. Ay's successor was the old general Horemheb, who no doubt worked hard to keep the country together, and who made the first attempt to regain Egypt's lost prestige in her northern empire. (Pl. II, Fig. 1, and Pl. III, Fig. 2.)

A scarab bearing his name Zeser-Kheperu-Ra, Setep-en-Ra, occurs in yet another group from Tomb 4013, with a scarab of User-Maot-Ra, Setep-en-Ra, Rameses II (Pl. II, Fig. 2, and Pl. III, Fig. 3) showing the continuity of Egyptian influence from the time of the Thotmosside conquest to the early part of the Ramesside period; it confirms the evidence of the continuity of the XVIIIth-XIXth dynasty temple. In this latest group, we get a re-issue of the founder of the XVIIIth dynasty, Aahmes I

Neb-Pehti-Ra, showing the veneration in which the man who expelled the Hyksos from Egypt was held. It is interesting that he was still commemorated in Palestine at this late time.

Just below the region of these rock-cut tombs, twenty-two feet under the surface of the valley alluvium, we came upon an unexpected deposit of animal bones, doubly sealed by a Hyksos burial and a lime-plastered floor. The collection consisted of the remains of donkeys and dogs, the skeleton of one dog was undisturbed, this was successfully removed and brought to London, and is the earliest complete skeleton of a domesticated dog from Palestine. It appears to be of the "seluki" type the dog probably first brought to England by the Crusaders, and from which the modern greyhound has been bred. The "seluki" is greatly prized in the deserts of Arabia, and ranks next in esteem to the horse. The potsherds found with it and its position sealed in by the Middle Bronze Age grave, makes it certain that these animals must belong to the early third millenium B.C.

Our work within the city fortifications, was confined to two main areas, the region of the great shaft (Pl. I), and the town south of the Palace-Fort. The great shaft was partially examined last season, and by locating three corners we had established the length of its sides to be seventy-three feet eight inches from north to south and eighty-four feet five inches from east to west. Our first problem was to find the depth of the bottom; to reach this we sank a second shaft down the south-east corner from the end of our original horizontal tunnel along the south side. This shaft was not opened up to the surface, permitting the continuation of subterranean work regardless of weather conditions.

Naturally surface water did eventually percolate through the water-laid filling, and down the sides of the rock walls of the shaft, but the possible danger of serious flooding was in this way eliminated. Our original shaft at the south-west corner (Pl. IV, Fig. 1), by which access was gained to our horizontal tunnel, was deepened, thus providing a sump for surface drainage, that would otherwise have flooded our workings.

On reaching the rock bottom at seventy-five feet, we examined the base of the east side by tunnelling to the north-east corner. In this clearance, masses of fallen boulders from

the collapsed city wall made progress difficult. All the larger pieces had to be broken up before being lifted by our light tackle to the surface. Mixed with this deposit of stone, was much charcoal and broken burnt brickwork, thereby demonstrating that the first fall of debris coincided with a period when the city was destroyed by fire. An attempt was made to tunnel to the centre of the shaft, this unfortunately failed, owing to the stones being loosely packed, the lighter silt having drained away through the interstices of the stones to the west, which we therefore presumed had been excavated to a lower level. This assumption was confirmed when we reached the base of the shaft, at the south-west corner, after tunnelling along the south side. Here the fallen stones ceased and sound tenacious clays provided a better roof and sides to our passage. However, the evidence of burnt debris on and above the rock floor was as noticeable here to the west as it had been in and below the collapsed walling to the east. The rock walls of the shaft, as exposed in our tunnels, show remarkably clean cutting by the ancient quarriers ; the scars of the excavators' tools indicate a short-handled iron pick, and the Rev. Father Vincent, of the École Biblique et Archéologique Française in Jerusalem, was struck with the close similarity of the technique of rock cutting, with the tool marks visible on the walls of the Hezekiah water tunnel, through Ophel, under David's Jerusalem.

There are still some points in connection with the construction of our great shaft, which have to be explained. Does a smaller well or shaft descend from the floor ? So far we have only been able to examine the rock base of two sides, and we hope next season, if the water-laid deposits are sufficiently free from boulders, to reach a central point, by tunnelling in from the middle of the west side. From the conditions of the rock cutting, particularly the region of the south-west corner, we are led to believe that this great example of ancient engineering may have been abandoned before completion ; the undercutting of the rock floor, at the south and south-west corners, suggest that this may be the case. The project may have still been in hand at the time of the first threat of Babylonian invasion, and no doubt the amount of labour employed would have been required on more urgent defensive works

and the quarried blocks of limestone would have provided handy building material. The smaller chips were being utilized for Government work within the city. The question of date we shall leave for the present until these further points are considered in their proper context.

South of the Palace-Fort, we continued the excavation of the upper burnt city levels. Badly ruined dwellings containing small rooms were found terraced up over the sloping earth ramp, piled against the footings of the great stone podium of the Judaeian keep. The floors of almost all the rooms were covered with a heavy deposit of charcoal and ash, and vast quantities of potsherds were collected from them. Precisely the same conditions prevailed as in the workshops cleared last year to the west. The rooms at the base of the ramp showed in some cases two distinct burnt floors, and to establish these observations definitely, we opened up a section immediately within the inner gate, where the burnt roadway had been exposed, contemporary with the floor level of the open court or guard room where the Lachish Letters were found.

We first came upon the stone lined channel of the city drain belonging to this road ; below it was a similar construction, falling from the east, choked with carbonized deposits. This lower drain was now seen to be connected with a well-laid road surface from which a broad cobbled sill rises. East of the sill, the road dips gently ; it had been carefully surfaced with crushed chalk chip and stones. Beyond, it has been traced rising to within two feet six inches of the Tell surface, where plough and hoe have completely destroyed it since Roman times. (Pl. V, Fig. 1.)

Separating the upper from this lower roadway, at the western end of the sounding, are eight feet of piled brickwork and lime plaster, the burnt remains of great towers, which once flanked the inner gate. (P. 171, *P.E.Q.*, July, 1937.) This mass is sloping inwards damming the natural drainage passage for storm water through the gate, and accounts for the clean silt that is piled up over and against the slope of this mass. Here, then, we have a unique section, clearly defining the two burnt city levels. We have already suggested that the upper one should be equated with the final Babylonian attack, the horizon to which the Lachish Letters belong, and this lower

or earlier burning may equally well be tentatively assigned to the first threat on Judah's independence, about 597 B.C., of which we read rather confused accounts in the Biblical records. One thing is clear from the evidence of the pottery collected from the houses ; the lapse of time between these two catastrophes is so short that it is impossible to differentiate one series from the other on typological grounds, therefore an interval of about ten years would be quite consistent with our present archaeological evidence.

Apart from the clearance and planning of the private houses, our work has been extended to the high terrace area, east of the Palace-Fort, where large rough-cut blocks of local limestone littered the surface. Below only a foot of black humus, the bright pinky-red debris of the massive upper brick wall was exposed, which had fallen outwards bringing with it the remains of large storage jars, thrown headlong from the palace floor level above. Some of the handles bore the impress of the usual government¹ stamps. This fallen brickwork was now seen to overlie a well prepared courtyard, paved with crushed limestone chip, similar in quality to the prepared road surface. (Pl. V, Fig. 2.) Here we may see the use to which the masons' chip was put from the excavation of the great shaft, and from the evidence for the date of the early road surface, we would venture to suggest that the work on the great shaft may have been suspended at the news of the first Babylonian advance. The commencement of this project may be assigned to the second half of Josiah's reign (circa 625 B.C.), a work blotted out, as in the case of the pavement, by the evidence of destruction.

This great courtyard area, with its crushed stone surface, extends for more than ninety feet eastward, and explains the table-like appearance of the ground to-day. By the presence of a number of circular "silos" or grain pits, cut down through the burnt brick rubbish, it would appear that during the occupation of the Persian residency, which we demolished three years ago, this region had in post-exilic times been reserved for the same purpose, and used as a municipal grain store. Before leaving the subject of the plastered courtyard, I should mention one interesting point, which shows how the

¹The well known "LMLK" type referred to in previous reports.

palace wall had been thrown down. The photograph shows the plastered surface of the courtyard, which was perfectly free from the usual deposit of charcoal and black ash, in contrast to the lime covered floors of the palace above. These are all badly burnt, it therefore seems clear that the palace had been fired from within, which reminds us of the numerous Biblical references to the wilful destruction by fire, even after cities had fallen. It is of little wonder that nothing of value was found on these burnt floors—plunder had preceded destruction.

Built against the south-east corner of the fort, a large rectangular building has also been examined ; it had originally been constructed of mud brickwork, laid on very solid stone foundations. (Pl. VI, Fig. 1.) Unfortunately this ruin has been denuded to below its floor level, which rested on a mass of constructional rubble consisting of town debris, which had been thrown in from north to south. This building must, therefore, have stood high above the main sunken roadway to the south, with doorways opening, perhaps, on to the high courtyard level east of the palace. By the size of the building, together with the character of the internal partition walls, making five long parallel chambers, devoid of secondary cross walls, we may perhaps assume that it was a government storehouse. Its position adjoining the south-east corner of the citadel, might suggest that its upper story would have been adapted for defence. The system of throwing out rectangular structures beyond the corners of the forts is not an unusual feature of Iron Age defence in Palestine. Although the building is destroyed, the rubbish filling its foundations is of the greatest interest to us. The potsherds were unmistakably Late Bronze Age and it became evident that the horizon from which they came had been dug into by these later builders. Quantities of sherds were from vessels of the local decorated type of the late XVIIIth–XIXth dynasty, similar to those found in the graves producing the scarabs. Many fragments were recovered of large decorated vessels of imported Mycenaean ware of the late thirteenth century B.C., and enough pieces of another vase have been recovered for restoration to be attempted. This shows the octopus motif, with undulating tentacles extended to cover the upper part of the vessel. With

them are specimens of a curiously surfaced grey ware with wavy combing, which have been identified with wares occurring in Troy VIIa and Tell Abu Hawam—certainly they are all foreign to our district. From this same deposit, comes a finely-engraved carnelian scarab bearing the name User-Maot-Ra, Setep-en-Ra, Rameses II. This scarab has certainly been subjected to fire, its surface has a greyish patination, and discoloration and fusing is a feature of so many of the decorated sherds in this deposit.

It was here also that we collected twenty-five fragments of a small open pottery bowl, inscribed spirally both inside and out. (Pl. VII, Fig. 1.) Since it has reached London, Dr. Alan Gardiner with Dr. J. Černý have recognized the script as Egyptian hieratic of the thirteenth-twelfth centuries B.C. Dr. Černý has very kindly made a hand copy of the inscription and has given us a reading :

Inside is written : " Year 4, 4th. month of Inundation day 26 . . . chief (??) of (the land) . . . tisha 1 [. . .], wheat [measures] 1000 plus x hundred from the harvest of . . . " Outside the inscription reads, as far as its faintness will permit " In the year 4, 2nd month of Inundation, day . . . wheat [measures] 420 . . . 1000 . . . year 4, 4th. month of Inundation, day 1, wheat [measures] $300 + x + 3 \dots 900$. "

The significance of this inscription is obvious, first we learn that the authorities at Lachish were using the Egyptian calendar and the Egyptian system of numeration, the actual dry measure employed is, unfortunately, unreadable ; the bowl, I suggest, after having been docketed at the government granaries, had probably been used by the representative of the chief (or sheykh) of the district making the tribute at a ceremony which perhaps we might compare to our harvest thanksgiving—a small sample of the three instalments being offered up.

Besides the fragments which build up this bowl, there are two other small pieces of different types of bowl, also of local ware, bearing a few hieratic signs, one reading " this day." (Pl. VII, Figs. 2 and 3.) We were naturally anxious to know just where this horizon lay, which had furnished all this ballast for the Iron Age builders, and, at the end of the season, we put on a man to cut down the soil adjoining the north-west corner of the

Palace-Fort, where we now recognize that the earliest masonry occurs. Hardly six inches below the bottom stone course, burnt brickwork was struck and at twelve inches, a deep layer of pure black ash was seen to cover the trench, and it ran on under the foundations of the building. Projecting from the line of the Iron Age foundations, was a course of finely-dressed limestone blocks, and lying against them a section of a small octagonal column. This, with the remains of the columns of the Persian residency, are the only architectural details that the city has so far produced. In the ash bed, we collected gold foil, fragments of a green glaze faience bowl and pieces of a small buff pottery bowl, of a type found in the upper levels of our XVIIIth-XIXth dynasty temple, with the ivory toilet objects and scarabs, buried in the ashes which produced the fragments of the Duweir Ewer. Here, once again, we find that the burning of the temple was not an isolated event in the city's history, but was part of a general calamity which marked the end of Egypt's control, in the twelfth century, towards the close of the XIXth dynasty.

It is to this region, north of the Palace-Fort, that we hope to return this autumn, to open up the northern terrace that runs out from the walls of the Iron Age keep. It is interesting to note that it is here that we lose the obvious signs of wealth, and it is perhaps well to remember to-day the lessons taught us by the spade of the archaeologist, that Palestine has always been most prosperous, as far as the material blessings of life are concerned, under strong foreign control.

An interesting discovery was made last winter in the laboratory of the Museum in Jerusalem. The Government Chemist, working on the preparation of metalwork for exhibition in the new Bronze Age gallery, discovered that a copper dagger which the Expedition found three years ago, was inscribed. (Pl. VIII, Fig. 1.) One side of the blade is now seen to bear four pictographic signs, deeply cut; the two central pictographs form part of the Sinaitic signary; of the other two, the upper one seems to be quite a new form, the lower one is found on early inscribed objects from Crete and the Aegean. The importance of this addition to the early inscriptional material from Lachish is that the inscribed dagger can be assigned quite definitely to a date perhaps before, but

not later than 1600 B.C. As Dr. Gardiner has pointed out (*Times*, 16th July, and T. Gaster, 30th July) it has an important bearing on the main question as to what date should be assigned to the beginnings of the development of the proto-Phoenician scripts, from which our own alphabet is derived. That clear pictographic forms were in use in the Hyksos period, leads him to prefer a later date for the Sinai inscriptions, which he had previously suggested might be XIIth dynasty. From the style and quality of workmanship of the dagger, it can confidently be claimed that it is of local origin, which precludes the possibility of its having been a foreign importation.

Thus our new discoveries at Lachish have added a number of pieces of historical evidence, that will in turn fit in to that larger historic picture of Palestine and her powerful neighbours. The prospects of future work in the city levels promise good results, and we hope that the anticipated changes in administration in Palestine will make permanent over the whole country the peace that we have been fortunate enough to enjoy at Lachish.

The Expedition's staff has again most loyally supported me, and without their enthusiastic co-operation much that has been achieved this season could not have been accomplished in the time. The work on the great shaft proved a most trying business, with day and night shifts, and their resourcefulness was taxed to the utmost. We much regret that Mr. Harding has left us to take up the position of Archaeological Adviser to the Emir Abdulla of Transjordan, and we wish him all success in his new responsibilities. At Lachish I have again had the help of Miss Olga Tufnell, Mr. Charles Inge, Mr. Holbrook Bonney and Mr. H. W. Pummell; Mr. and Mrs. Warren Hastings, and Miss Joan Crowfoot joined us, as well as Miss Barbara Parker, who with Mr. James Kirkman were both students of the Institute of Archaeology. The photography was again in the capable hands of Mr. Richmond Brown.

We tender our most heartfelt thanks to the Trustees of the late Sir Henry Wellcome, who with Sir Charles Marston and Sir Robert Mond have again made it possible to carry on, not only this season's work at Tell ed Duweir, but also to



COMMENCEMENT OF WORK ON SHAFT IN SOUTH-EAST DEPRESSION



FIG. 1. SCARABS FROM THE TRIPLE CHAMBERED TOMB. LATE XVIII EARLY XIX DYNASTIES PERIOD



FIG. 2. 1ST AND 2ND LINE: SCARABS FROM TOMB 4011. TOP CENTRE: AY
3RD LINE: SCARABS FROM TOMB 4013 L. TO R. HOREMHEB, RAMESES II
AND AAHMES



FIG. 1. FROM INNER CITY GATE, LOOKING ALONG CITY WALL,
CONSTRUCTED AFTER FIRST BABYLONIAN ATTACK (597 B.C.)
TOWARDS S.W. CORNER OF TELL



FIG. 2. KHEPER-KHEPERU-ARI-RA.
SEE PL. II



FIG. 3. ZESER-KHEPERU-RA-SETEP-EN-
RA. SEE PL. II



FIG. 1. LOOKING DOWN INTO S.W. CORNER OF ROCK-CUT SHAFT IN S.E. DEPRESSION

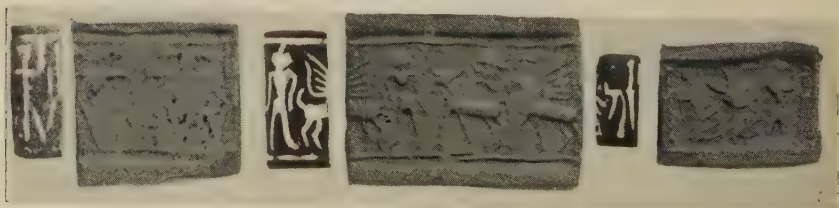


FIG. 2. CYLINDER SEALS FROM TRIPLE CHAMBERED TOMB WITH IMPRESSIONS



FIG. 1. LATE JUDAEAN ROAD SURFACE: LOOKING WESTWARD DOWN TO
INNER CITY GATE



FIG. 2. S.E. CORNER OF PALACE-FORT, SHOWING FOUNDATION COURSES UPON
LATE BRONZE AGE DEBRIS, AND BRICK WALLS OF STORE CHAMBERS BELOW.
RIGHT: LEVEL OF LIME-SURFACED COURTYARD, CUT INTO BY PERSIAN GRAIN
PITS, REMAINS OF ONE IN CENTRE FOREGROUND



FIG. 1. S.E. CORNER OF PALACE-FORT, SHOWING HEAVY STONE FOUNDATIONS OF GOVERNMENT BUILDING, INTO WHICH LATE BRONZE AGE DEBRIS HAD BEEN THROWN TO RAISE FLOOR TO LEVEL OF PALACE COURTYARD



FIG. 2. N.W. CORNER OF PALACE-FORT, SHOWING BLACK ASH BED AND WELL-DRESSED MASONRY OF THE LATE BRONZE AGE CITY UNDERLYING EARLY IRON AGE FOUNDATION COURSES

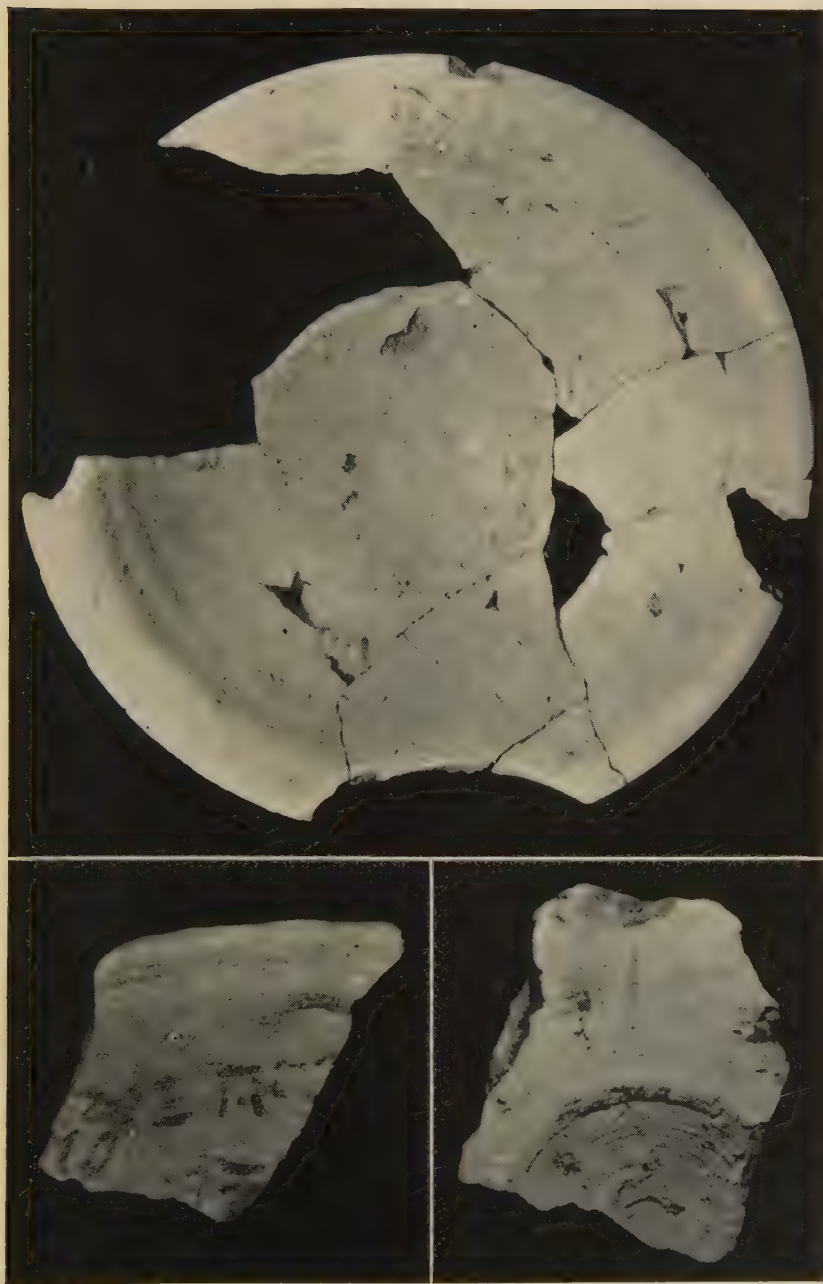


FIG. 1. INSIDE OF POTTERY BOWL, INSCRIBED IN EGYPTIAN HIERATIC
 FIGS. 2 AND 3. FRAGMENTS OF POTTERY BOWLS OF LOCAL WARE, SIMILARLY
 INSCRIBED

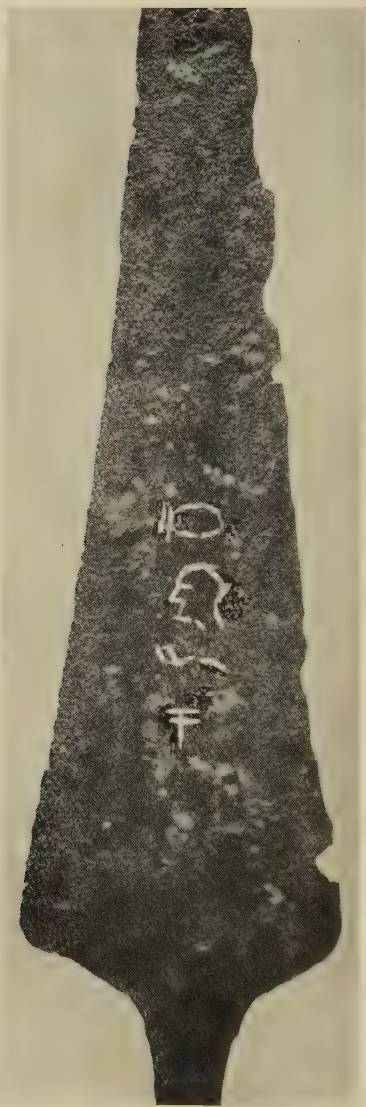


FIG. 1



FIG. 2

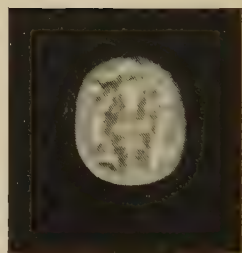


FIG. 3



FIG. 1. BRONZE DAGGER OF HYKSOS PERIOD (CIRCA 1600 B.C.) BEARING INCISED INSCRIPTION IN PICTOGRAPHIC CHARACTERS

FIG. 2. SEAL IN BANDED QUARTZ INSCRIBED "FOR SHIFATYAHU ASYAHU"

FIG. 3. SEAL IN PINK LIMESTONE WITH FIGURE OF THE MOTHER-GODDESS ASHTORETH. ON RIGHT, A MONKEY SEATED ON THE SACRED TREE, LEFT, A MAN STANDS ON A STOOL WITH ARM RAISED IN SUPPLICATION. ABOVE: A BIRD (EAGLE) WITH OUTSTRETCHED WINGS. A TYPE OF SEAL UNUSUAL IN THE SOUTH OF PALESTINE

continue the difficult task confronting the geological section's work at Bethlehem. We also have to thank again the staff of the Wellcome Research Institution, who have so kindly made it possible for our Exhibition to be arranged in the adjoining hall of this building. Captain Johnston-Saint, with Mr. Dean and Mr. Port have given us unstinted help in all the details.

NOTES ON THE BEDOUIN TRIBES OF BEERSHEBA DISTRICT

BY S. HILLELSON

THE following notes are derived from an Arabic work entitled *A History of Beersheba and the Tribes thereof* (*Ta'rikh Bīr al-Saba' wa qabā'ilihā*) by 'Ārif al-'Ārif, published at Jerusalem in 1934. From the point of view of the European reader the different sections of the book are of unequal value for on matters connected with ancient history and archaeology the author can hardly claim to speak with authority, and the chapters devoted to these subjects are of little interest. As Kaimmakām of Beersheba, however, he has had unusual opportunities for studying the life and the history of the Bedouin tribes, and the information he gives us is of distinct value ; his study of Bedouin law and customs (which fills a second volume) forms a useful supplement to the treatises of Père Jaussen and Austin Kennett, even if it does not break new ground : the chapters, however, which we have selected for translation, contain information which is not easily accessible elsewhere. It seemed inadvisable to attempt a full translation, partly for reasons of space, and partly because a good deal of the text can be dispensed with as being of secondary interest. The translator has condensed the text as far as possible, and he has omitted lists of tribal camping-places, and of unimportant sub-clans and families, and references to individual shaykhs of sections and sub-sections. It should be noted that the original contains many illustrations, chiefly photographs of tribal notables. The section here reproduced in abridged form corresponds to Chapter Three of the original which occupies pp. 77-159 of the Arabic text : it is intended in future issues of the PALESTINE EXPLORATION QUARTERLY to deal in a similar manner with the succeeding chapter, which contains an account of tribal wars related in a manner reminiscent of the " Days " of the ancient Arabs.

I

THE TARĀBĪN

The Tarābīn are the most important tribe both as regards numbers and extent of territory : they are also called 'Iyāl Ṣāldam, the latter term being used more particularly as a gathering-cry.

Researches amongst the Arabs themselves and in other quarters have failed to produce any reliable information on the subject of their origin and the history of their migration to Palestine. The traditions which are contradictory and fragmentary may be summarized as follows :

The most prevalent opinion amongst the Tarābīn elders is that their ancestor 'Aṭīya belonged to the tribe of Quraysh and dwelt at a place called Turba to the east of Mecca, the name of the tribe being derived from Turba.¹ It is to be noted that one of the Tarābīn sections, the Nijmāt al-Ṣāni', are sometimes called Baghūm, and that there is a Baghūm tribe in the Ḥijāz at the present day.

The name 'Iyāl Ṣāldam is explained by a tradition to the effect that 'Aṭīya married a Christian woman called Ṣāldam : according to some she was an English tourist who had lost her way in the desert.

Another tradition which, however, finds little support by the tribesmen, alleges that Ṣāldam and not 'Aṭīya is the tribal ancestor : this Ṣāldam is supposed to have been an Englishman who embraced Islam in the time of the Caliph 'Umar (sic). Having reason to fear the Caliph's anger on account of some fault committed by him he took to flight : later the Caliph desired to take him back into favour, but the messenger sent to summon him to court found him dead.

'Aṭīya is said to have migrated to the Sinai Peninsula at a date given vaguely as 600 years ago. Together with his two sons Nijm and Ḥasbal he was buried on a hill called al-Sharaf near Suez : the graves are still visited by the Sinai Arabs.

The sons of 'Aṭīya were five in number : Musā'id ancestor of the Quṣār ; Ḥasbal ancestor of the Ḥasābila ; Nab'a

¹Turba and the Baghūm are mentioned by Doughty in *Arabia Deserta*.

ancestor of the Naba'āt ; Ṣarī' ancestor of the Ṣarāyi'a ; and Nijm ancestor of the Nijmāt and Ghawālī. With the first four sections we are not here concerned, as they belong to Sinai.

Nijm had two sons, and it is to these two that all the Nijmāt and Ghawālī (in other words the Tarābīn of Beersheba as distinct from those of Sinai) trace their descent.

The origin of name " Ghawālī " is related in the following tradition :

One of the two sons of Nijm having been slain by a man of the Naba'āt called Abū Ghāliya, the ensuing blood-feud was eventually settled by the marriage of the slayer's two daughters, Ghāliya and Zāri'a, to the two sons of the victim : Ghāliya thus became the ancestress of the Ghawālī, while Zāri'a is commemorated in the name Mazāri'a applied to the section also known as Nijmāt al-Ṣanī'. The remaining sections of the Nijmāt, Ṣūfa, Sanā'ima, 'Awā'isha, Dabāriyīn, &c., are descended from the other son of Nijm.

Although the Mazāri'a are more closely related to the Ghawālī than to the Ṣūfa, yet they are counted as belonging to the Nijmāt and in tribal wars they fight side by side with the Ṣūfa : the reason for this is to be sought in dissensions due to the distribution of " khāwa " levied on villagers.

The Nijmāt are regarded as the most important section of the Tarābīn : they claim that in the old days they led the whole tribe in battle, and that they played the leading part in the wars between the Tarābīn and other tribes.

Formerly all the Nijmāt acknowledged the authority of one shaykh : at present each sub-section has its own shaykh.

The leading clan of the Nijmāt, and that which has produced their most prominent men, are the Ṣūfa. Hammād Pasha al-Ṣūfī bore the title of *shaykh al-mashā'ikh* and he led all the Tarābīn in their war against the Tiyaḥa ; the Turks entrusted to him the command of a Bedouin force of 1,500 men which took part in the operations on the Suez Canal in the Great War. He also held the post of head of the Beersheba municipality under the Turkish administration, though at times he was out of favour and even in prison. He died five years after the British occupation, and he is still spoken of by the tribesmen as one of their great men.

The brands¹ used by the Nijmāt are the *ḥanak*, the *khuṭām*, and the *muṭraq*; some of them also use the *qinā'* and the *shi'ba*.

THE GHAWĀLĪ

They are divided into nine sub-sections: Satūt; Ḥaṣīnāt; Shalāhiba; Khatalīn; Bukūr; 'Umarāt; Zari'iyīn; 'Umūr; and Naba'āt. The Wiḥeydāt and Ḥasanāt, though of different origin, are nowadays also reckoned as belonging to the Ghawālī. The brands used by them are the *khidma* and the *muṭraq*.

The most prominent section are the Satūt, who of old provided the paramount shaykhs of the section. The name is derived from the nickname Abū Sitta (the father of six) conferred on one Hamad Abū Dahshān who on all journeys and raiding-expeditions was accompanied by six slaves. The Mul-lāk, a family of the Banī Ṣaqr, claim the Satūt as their own kin, and state that they are not genuine Ghawālī at all. According to Shaykh Ḥusayn Abū Dahshān this claim is not without foundation; for the name Ṣaqr was frequently borne by men of his house, and there was undoubtedly a connection between the Satūt and the Ṣuqūr.

In A.H. 1290 when Ṣaqr ibn Dahshān Abū Sitta was shaykh, the Satūt were driven from their homes on account of a blood-feud with the Ṣūfa, for which reason they had to seek the protection first of the 'Allāmāt, then of the Hazīl; thereafter they were involved in the wars between the Tarābīn and the Tiyāha, and though of Tarābīn origin, they fought on the side of the Tiyāha. This attitude was resented by the other Tarābīn sections, who thereupon urged their 'Aqīd Ḥammād al-Ṣūfī to arrange for the return of the Satūt to their original *dār*: in order to induce them to return he had to agree to make them an annual payment of money which has continued ever since. The Satūt now returned to their ancient homes, but during their absence the shaykhship of the Ghawālī had passed to the Zari'iyīn who held it down to the time of the Great War. The Satūt in those days had a great name amongst the tribes,

¹Arif Bey, as will be seen, is careful in most cases to note the *wasm* or brand used by each tribe and section for the purpose of identifying their animals. In the Arabic text these brands are sometimes shown by means of diagrams which, however, are not exact representations of the marks used, and in some cases the translator was left in some doubt as to their precise significance.

and their 'Āqīd Ṣaqr won renown in the Tiyyāha-Tarābīn war ; he also raided the Ma'āza of Shaykh Ḥasaballāh as far away as Upper Egypt, and gained victories over the Ayda and Faqīr of Madā'in Ṣālīh. In Egypt Ṣaqr obtained a grant of 500 feddāns of land in the Fāqūs district from the Khedive Isma'il, and the descendants of his son Ḥammād still dwell there. On the other hand he was in bad odour with the Turks, who exiled him to Jerusalem together with other shaykhs of the Tarābīn and Tiyyāha, and he died in exile. His son Dahshān also took a prominent part in the tribal wars, and distinguished himself greatly in the Fight of Ramaḍān between the Tarābīn and the 'Azāzma ; but having, on this account, drawn upon himself the wrath of the Turkish government he migrated with a number of tribesmen to Transjordan, where he attached himself to the Banī Ṣakhr and fought on their side against the Ruwala thus enabling the Banī Ṣakhr to gain the victory.

In the course of these events, as has been said, the shaykhship of the Ghawālī had passed to the Zari'iyyin, and there were three successive shaykhs of this house : Maṣṣūr ibn Naṣr ; 'Awda ; and Salīm. The last-named had to flee from the wrath of the Turks in 1915, and he was succeeded by 'Abd al-Karīm who died in 1931. His death was followed by an interregnum during which several parties contended for the shaykhship, until the choice fell on Muḥammad Abū Zari'. Of other sections 'Ārif Bey has very little to say : the Khatālīn, we are told, separated from the Satūt a few generations ago ; the 'Umūr, who made themselves independent of the Zari'iyyin in 1931, are said to be of Rabī'a origin, and a connection may perhaps be traced with the Egyptian village of 'Umūr in Sohag district. The 'Amarāt, who are cultivators, are said to hail from Ma'an.

THE ḤASANĀT

By descent the Ḥasanāt are connected with the Liyātha of Wādī Mūsa, although they are now reckoned to belong to the Ghawālī : 'Ārif records the following saying of a Liyātha elder : " The Ḥasanāt are of us, and we are of them ; but they separated from us on account of famine and plague in the old days."

An account of the Liyātha is included in Dr. Tawfiq Kan'an's *Studies in the Topography and Folklore of Petra*

published in 1930 : from this paper the following notes on the Liyātha are largely derived :

According to Ibn Faḍlallāh al-‘Umārī, the fourteenth century author of the *Masālik al-Aḥṣār*, the Liyātha are a branch of the Banū Layth, who in their turn are descended from the Kināna. This statement is confirmed by Maqrīzī and al-Qalqashandī. A section of the tribe is said to be living in the Akhmīm district of Upper Egypt. There is, however, another theory, which connects the Liyātha with a Wādī al-Layth in the Yemen.

The Liyātha originally were subjects of the Ḥijāz : but they were driven out by the Wahhābīs after their conquest of the Ḥijāz and passed under the authority of Transjordan : in 1926 they rose against the government, but they have been at peace since.

The Liyātha of Wādī Mūsa are cultivators but dwell in tents like the Bedū ; they are divided into the following four sections : Banū ‘Aṭā (thirty tents) ; Shurūr (seventy-three tents) ; ‘Ubaydiyīn (seventy tents) ; ‘Alāyā (forty-five tents). In the old days they were the guardians of Wādī Mūsa, but recently they have fallen on evil days, so much so that they were obliged to sell their arms in order to obtain food.

They have many saints, of whom the most famous is called al-Ḥasanī, who is the ancestor of the Ḥasanāt (a family of the ‘Ubaydiyīn) : his grave is marked by a half-ruined shrine consisting of a simple chamber, which the tribesmen visit on many occasions and where they recite the Fātiḥa ; they also take oaths on the shrine, and they believe that anyone who swears falsely, will meet with disaster within three days.

The Ḥasanāt of Beersheba number about 500 : their shaykh is Mūṣa ibn Sālim ibn Salmān Abū Mi‘ayliq (a name which leads ‘Arif Bey to trace a connection with the biblical Abimelech !) They do not accept the theory of a connection of their tribe with the Liyātha ; on the other hand their brand—the *khidma*—is identical with that of the Liyātha of Transjordan.

THE WIḤEYDĀT

Some of the Wiḥeydāt claim Ḥusaynī descent, but the generally accepted theory is that they originally come from

Jebel al-Sherāh in Transjordan, and that they are not of Tarābīn lineage at all. Iskandar Ma'lūf, however, informed our author of a different tradition which states that Nijm the ancestor of the Tarābīn-Nijmāt arrived in Sinai together with a certain al-Wiḥeydī who was a descendant of Ḥasan; Nijm and al-Wiḥeydī each married a daughter of a man of the Banī Wāṣil, and thus they became the ancestors of their respective tribes.

The Wiḥeydāt are found near Gaza, where they are at constant enmity with their neighbours the Ḥasanāt. Their brand is the *miḥjan*.

THE MAḤĀFIZA

The Maḥāfiza nowadays are subject to the Nijmāt al-Ṣāni', but their tradition is that they were originally Sawālīma, i.e. a branch of the "Arab Abī Kushk" of Jaffa district: their ancestors 'Alī and Ḥasan migrated to Egypt on account of a murder in which they were involved, and settled in Ṣaliḥiyya where they flourished greatly; they left Egypt again at the time of the opening of the Suez Canal and, under the leadership of Maḥfūz, joined the Tiyyāha. Maḥfūz had three sons, Isma'il, Sālīm, and Salīm, the last of whom left no offspring. In due course they quarrelled with the Tiyyāha, and a dispute arose between the Tarābīn and the Tiyyāha, each of the two claiming the Maḥāfiza as their subjects. A serious tribal war was averted by an agreement, made under the auspices of Isma'il Abū Khatla, which assigned one section of the Maḥāfiza to the Tarābīn and one to the 'Azāzma: accordingly the section of Isma'il lives with the former, and the section of Sālīm with the latter. They have no official shaykh of their own.

THE JARĀWĪN

These people trace their descent to a Ḥijāz tribe called Banī Jarī and allege in proof of their contention that they use the Banī Jarī brand—the *zinād*. Their ancestor Jarwān came to Sinai from the Ḥijāz as a refugee from blood-guilt, and took up his abode near Jebel al-Ḥalāl. The Jarāwīn strongly repudiate the statement made by others, that they are descended from a fellāḥ named Kalūb.

The story goes that during a feud between the Tarābīn and the 'Ayā'ida a peace-meeting was held in Jarwān's house : both parties were so much impressed by his wisdom that they desired him as an ally (*ḥalif*) ; Jarwān, however, refused to ally himself to either ; yet he consented to become a friend (*alif*) of the Tarābīn, and on their invitation he migrated to the district of Beersheba. There he made his home, and at a place called Ṣalīb he dug a storage-tank (*birka*) still known by his name. He married a local woman, and from this marriage the Jarāwīn are descended.

Later a feud broke out between them and the Tarābīn on account of the latter having slain a man of the Jarāwīn. The Jarāwīn being weak in numbers migrated to Shamsāniyāt where a woman of theirs, called Umm Ghalyūn, dug a "*harāba*" still called after her to this day.

The feud went on for some time and there were raids and murders : at last peace was made on the following terms : (1) that there should be no *jīra* between the tribes, i.e. that no person should be prevented from entering the land of the other tribe ; (2) that no women of the Jarāwīn should be abducted ; (3) *lā yajūz wasāqat amwāl al-ḥarawīn qabl al-taṣhīd* ;¹ (4) that for a slain man of the Jarāwīn fourfold bloodwit should be paid. The terms were guaranteed on the Tarābīn side by Abū Bakra of the Ghawālī ; Abū 'Ādira of the Nijmāt ; Abū Jireybī' of the Quṣār ; and al-Dalaḥ of the Naba'āt ; all this happened twenty years before Napoleon's campaign at Acre.

Notwithstanding the terms of the agreement the Jarāwīn remained dependent on the Tarābīn shaykhs, until they were given a shaykh of their own by Ra'ūf Pasha, a mutasarrif of Jerusalem. After the British occupation the Jarāwīn were split up into three sections each under a separate shaykh.

II

THE 'AZĀZMA

The tribesmen's own account of their origin is "The 'Azāzma are descended from Quḍā'a, and the Quḍā'a are of the lineage of Quraysh." The Amīr Shakīb Arslān, in a private communication to 'Ārif Bey states that they belong to the

¹I am uncertain how this sentence should be translated.—S.H.

Sharārāt amongst whom there is a section of the same name ; the name Āl 'Azzām is also borne by folk living at Gīzah in Egypt, and there are Banī 'Azzām amongst the Druzes of the Ḥaurān. The Sharārāt, in their turn, are descended from the Banī Kalb who are of pure Qahtānite stock.

According to Alois Musil (Arabia Petraea) the 'Azāzma are descended from the ancient Ma'āza. The following account of 'Azzām, the tribal ancestor, was given to 'Ārif Effendi by a shaykh of the tribe : When he was still a babe his mother was wandering about in the desert, overcome by heat and thirst. Unable to find water she placed the child on the ground in order to go forth alone in search of water : as the child was kicking the ground with his feet water spouted forth, and both mother and child were saved. She then took him to 'Aynūn and Wāqiyān in the Ḥijāz where the child grew up and married a girl who bore six children, Sarḥān, Muḥammad, Farḥān, Sa'īda, Ashtiya, and Naṣra. The different sections of the tribe trace their descent to the children of 'Azzām, and they migrated to Sinai and Southern Palestine.

The 'Azāzma fought with the Tarābīn and the Tiyāha and, being weak in horsemen, they migrated to al-'Arīsh : they nevertheless carried on the war against their adversaries and, in the end, were able to return to their original home in Shallāl, Buḥeyrāt, &c. Further wars with the Tarābīn compelled them to wander in inhospitable deserts, and this went on until the Turks established themselves in the land, and the modern town of Beersheba was founded.

The Muḥammadiyahīn, an important section of the tribe, claim to be descended from one Ḥamad ibn Sulaymān of the Ḥarb tribe, who it is said, left his tribe and wandered to Wajh and thence to Sharma and 'Aynūn, and in the latter place he planted date-trees. One of Ḥamad's sons named Mūsa slew a man of the Ḥarīṣāt and, as men do in such a case, wandered about with his brothers in the 'Arīsh desert where he fell in with a party of the Tarābīn, whilst watering their herds at a storage basin. A quarrel ensued which nearly led to open fight, but the scouts sent by the Tarābīn to spy out the strength of their opponents, reported that it would be wiser to make peace. Accordingly the tribes came together and concluded an alliance which was to endure "until the sea dries up and hair

grows on a man's palm": thereafter certain sections of the 'Azāzma fought on the side of the Tarābīn against their various enemies, and they remained allies until a short time before the foundation of Beersheba: then there was war between them and the Tarābīn on account of the lands.

The 'Azāzma at the present time are divided into ten sub-sections. Their brand is the *bāb*, placed on the right flank, and for camels the *'āmūd*: some of them, such as the Sarāḥīn section use the *amārāt*, which is a slight variation of the *bāb*.

They number about 10,000: they are of dark complexion, and conspicuous for honesty and patient bearing in adversity, and they will do their utmost for the guest and the *b*. Their women herd the flocks, and they are much addicted to the abduction of women. Scarcity of grazing compels them to lead a wandering life more than the other tribes. The area over which they wander is spacious, but affords little opportunity for cultivation: yet they grow a little wheat and barley, and a few of them cultivate millet and water-melons.

They are on bad terms with the Ma'āza¹ and the Ṣukhūr of Transjordan; since 1930, however, there has been peace, and a formal peace-treaty was signed in the author's presence in Beersheba. In the old days they were allies of the Tarābīn and fought on their side in tribal wars; but after the incident known as the War of Zāri' they quarrelled over certain lands and for some years they were at war.

THE RIYĀṬIYA

These people are of Syrian origin, but their traditions about their ancient home are not very exact: they state that they came to Beersheba in the time of Ibrāhīm Pasha, and they now live amongst the 'Azāzma.

The grandfather of their present shaykh, 'Abd al-Qādir, bore the nickname al-Jundī (the soldier) because he carried mails for the army: his family-name was Saḥlūl, and the name Riyāṭī (dung-man) is of recent origin; the following anecdote is told about it: during a quarrel between a man of the Tarābīn and a man of Tiyāha, the former called his opponent a "man

¹Notwithstanding this feud, there is a tradition that the 'Azāzma are of Ma'āza origin: this, however, does not apply to the Sarāḥīn section, who are of different lineage and may be connected with Wādī Sarḥān.

of dung," and the insult led to the drawing of swords, but 'Abd al-Qādir al-Jundī who happened to be present pacified the angry man of the Tiyāha by exclaiming : " let me be the Riyāṭī instead of you ! " The nickname, however, stuck to his descendants.

This 'Abd al-Qādir at one time lived amongst the Nī'aymāt section of the Tarābīn, where he married a wife and had four sons and six daughters : but when the Tarābīn abducted his eldest daughter, he divorced his wife and migrated to Egypt, where he married again.

The Riyāṭīya number some 200 souls : they use the *shī'ba* and *muṭraq* combined as a camel-brand, and the *shī'ba* alone for sheep and goats ; they are cultivators, and some of them trade in sheep and jewelry, and in Bedouin clothing : they do not, however, use shops, but carry on their trade in Bedouin tents.

They are intelligent folk, and many of them are literate like townspeople. They do not marry a girl without her consent, and they employ for the marriage ceremony a man licensed for the purpose by the Sharī'a judge. Both men and women of the tribe are ardent Moslems : a tribesman who neglects the rite of prayer is held in low esteem, and may even be ejected from the tribe.

SOME OBJECTS FROM TRANSJORDAN

BY LANKESTER HARDING

THE objects illustrated in this article are the property of officers of the Arab Legion; the two figurines, head and lamps, Figs. 1-5 and 11 belong to Abdallah Bey Rihani of Tafleleh, the figurine, Pl. X, Fig. 8, belongs to Bahjet Bey of Kerak, and the seal is owned by Khalyl Bey Zaza of Amman. To them my best thanks are due for their permission to photograph and (?) the objects. The figurine, Pl. X, Fig. 9, is the property of Department of Antiquities, Transjordan.

The two figurines, head of a third, multiple lamp, and two ordinary lamps, were found by fellahin in the course of clearing out a spring at Ain Jenin, about two kilometres east of Buseirah, south-west of Tafleleh. There is a small Khirbeh near the spring, called Khirbet Jenin or Kedhabeh, but there are no indications of any remains earlier than Nabataean on the site,¹ so the objects must be connected with Buseirah (identified with the Biblical Bosrah), the only Iron Age site in the immediate vicinity. From the form of the lamps, the group would appear to date to the eighth or ninth century B.C., and may be part of an offering to the deity of the spring.

The material of the first figurine, Pl. IX, Figs. 1 and 2, is a rather coarse, grittypottery, brown surface, black core, soft fired; there is no trace of any wash or slip. The body, head and lamp were made separately, all thrown on the wheel, and the modelling was done by adding lumps and strips of clay on to what was an ordinary lamp on a hollow stand. A quantity of very finely chopped grass or straw has been added to the clay with which the modelling is done: no trace of this straw is seen in the black core of the main body. The face is strongly masculine in character, but the presence of breasts leaves no doubt as to the sex intended. The method of indicating the hair is curious, and the meaning of the row of punched holes across the forehead is obscure. The spout of the lamp shows no signs of

¹ *Annual of the American Schools of Oriental Research*, XIV, 78.

burning. There is a fragment of a similar head with a lamp on it from Gezer, now in the Palestine Archaeological Museum.

The second figurine, Pl. IX, Figs. 4 and 5, is made of rough, very gritty pottery, hard fired, red all through : no traces of slip or wash. The body is oval in shape, having been thrown on the wheel and flattened slightly ; the head is hollow, and modelled separately (not thrown), and pegged into the body. An unusual feature is the very heavy ridge above the eyes. There are clear indications on the body that the arms originally crossed in front, and may possibly have held a round object, as do the other examples.

The head of the third figurine, Pl. X, Figs. 6 and 7, is made of a coarse, slight gritty pottery, red surface, black core, very soft fired. Remains of a lamp on top of the head can be seen. A collar decorated with a double row of punched holes is shown round the front of the neck and another group of such holes can be seen on the left cheek. The hair is indicated in the same way as on the first example, except that the strands are placed closer together. This head is solid, and was pegged into the body in the same way as no. 2.



Fig. 11. Scale 1 : 5

The multiple lamp on stand, Fig. 11, is made of a gritty grey paste with a black core, while one of the lamps is of soft red, the other of soft grey paste. The form is exactly the same as that of lamps of the same period found in Palestine.

The fourth figurine, Pl. X, Fig. 8, comes from somewhere in the neighbourhood of Kerak, the exact locality being unknown. It is made of a fairly soft, smooth paste, red surface, black core, with a haematite wash, and burnished or polished surface. In contrast to the preceding examples, this figure is solid, and has been cast in a mould.¹ Three lines are indicated round the waist, as though to represent some garment or belt. The whole style of this figure is quite different from the Buseirah specimens, and only resembles them in that a round object is held in the hands in front of the body. This

¹ Moulds for similar figurines are illustrated in Petrie, *Gerar*, pl. XXXVI, nos. 6 and 19.



FIG. 1



FIG. 2



FIG. 3

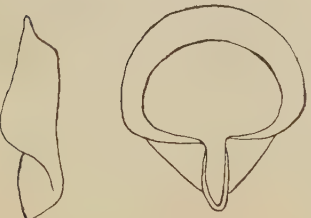


FIG. 3a. SCALE 1 : 5



FIG. 4



FIG. 5



FIG. 6



FIG. 7



FIG. 8



FIG. 9

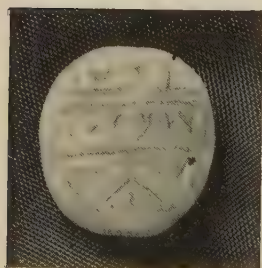


FIG. 10

figure may perhaps be dated slightly later than the others, possibly seventh or late eighth century B.C.

The provenance of the fifth figurine, Pl. X, Fig. 9, is unknown, and has been in the Department of Antiquities for some years. It is made of a soft buff pottery, black core, soft fired, and shows clear traces of a pinkish slip. Like no. 4, it is solid, and has been cast in a mould. The hair is parted in the middle, and a twisted lock, ending in a curl, hangs down either shoulder. A collar or necklace is shown round the neck, and the round object (held on the left side instead of in the centre as is more usual), is decorated with incised lines. In the collar and treatment of the hair it has affinities with both the Buseirah and Kerak figures, but perhaps in date it should go with the latter.

The seal, Pl. X, Figs. 10 and 12, was acquired by Khalyl Bey while in Tafleeh, so may, perhaps, also come from Buseirah, as that was the most important Iron Age site in the neighbourhood. It is of the usual ovoid form, $13/16 \times 11/16$ in. (20×18 mm.), and the material is a rather opaque chalcedony with a brown patch on the back. The face is divided into three registers, the upper and lower containing decorative motifs, while the name is in the centre. This reads שמעאל, Shema-al; a faint trace of the crook of the ל is visible in the break which occurs at this point. The name in this form does not seem to be recorded anywhere, שמעיהו and שמעאל being, however, fairly common. The usual prefix ל, "belonging to," is omitted. On general stylistic grounds it could be dated to the ninth century B.C.

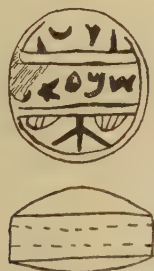


Fig. 12. Scale 1 : 1

NOTE ON NEW TYPE OF *Æ* COIN FROM
PETRA

BY A. S. KIRKBRIDE

DURING the period of five years from 1931 to 1936, thirty-seven specimens of a new type of bronze coin have been found at or in the vicinity of Petra.

Attempts to secure specimens of these types from other parts of Transjordan were unsuccessful apart from one specimen from Kerak, but one or two copies of coins of a similar order are reported to have been discovered near Gaza.

The coins are thick, slightly concave and convex at the reverse and obverse respectively ; they are struck in a reddish copper which is inclined to flake. The average diameter is sixteen millimetres, the weights vary considerably. No traces of lettering are visible on any of the coins.

The obverse of eighteen of the coins is so ill preserved as to make the image practically untraceable ; of the balance, apart from minor differences, three main types are distinguishable. The first (fig. a), appears on eleven coins and consists of a male head with a clean-shaven face and wearing a conical helmet surmounted by a knob from which hangs a plume ; the hair is long and braided. Six other specimens show a larger head wearing a lower helmet on which the knob is set further back (fig. b). Two specimens show a helmet similar to type (a), but without the plume, and the individual tresses of hair of the head are not evident as in the other two types (fig. c).

On types (a) and (b) the plume is illustrated in precisely the same manner as the hair and it may well be, therefore, that the ornament of the helmet represents hair also.

The motif on the reverse of all thirty-seven specimens is the same, namely, a winged victory standing three-quarters left with the right hand extended apparently holding a wreath, although the last object is not entirely clear in any of the specimens found.



FIG. A



FIG. B



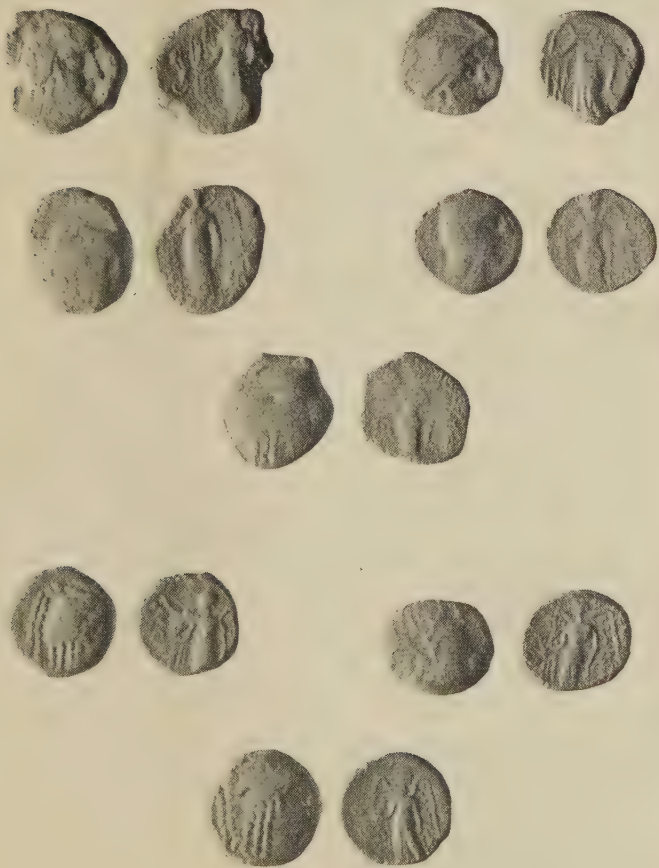
FIG. C



FIG. 1



FIG. 2



The figure is bareheaded and wearing a long chiton ; the wings are half unfolded.

There are a number of minor variations, but two main types are evident ; on the first the feathers on the wings are indicated by slightly hachured lines (fig. i), whereas others bear feathers which are portrayed by lines of dots (fig. ii). It is to be noted that, on the coins on which the obverses were identifiable with a type, reverse type (i) appears with obverses types (a) and (c) and reverse type (ii) appears with obverse (b).

The provenance of these coins offers some justification for assuming that they are Nabatean and the fact that they are only found in the neighbourhood of Petra seems to indicate that they date from an early reign because the later *Æ* issues, those of Aretas IV, Malichus II and Rabbel II are commonly found in the northern districts of Transjordan over which Nabatean influence had, at the latter date, spread.

A further indication of Nabatean origin may be found in the long hair which appears also on the coins of the later kings of Nabatene ; see B.M.C. (Arabia, Mesopotamia, page 8).

There are fleeting similarities of type between these coins and those of the earlier Selucid issues and the conical helmet resembles in some respects the headdress on the Characene and Elymais bronzes of the first century B.C., and also that on the earlier *Æ* of the Parthian kings.

This is not, however, strong evidence as to date and unfortunately none of these coins has been discovered in circumstances which point to the other known types, in association with which they were found, being contemporary ; the facts have always indicated the contrary to be the case.

As regards mintage any suggestion made must be pure conjecture.

The provenance from a restricted area may point to a mint at Petra, and if that was the case, a further assumption might be made, that the metal came from the copper smelteries which existed at Sabra, a few miles south of Petra, and around Feinan on the eastern edge of the Wadi Arabah. The fact that it was not highly refined (see above) is in favour of such a supposition.

The details of the drawings were reconstructed from those visible on the coins.

Another possibility would be to drain the lake. The ground so opened to cultivation would, it is true, contain 63-85 per cent. chalk, so that it may be wiser to drop this plan. Various schemes arising out of this plan would always lead to a lowering of the level of the Jordan as well as to a widening and regulation of the river. In any case it is necessary to avoid the great danger of floods and therefore a canal ought to be built. It is economically possible to build dams, as well as a pumping arrangement. Without entering into technical details it can be said that the drainage must be arranged according to usage. But it may be added that a reservoir could be built in the neighbourhood of the springs of the Jordan, and thus bank up about 160 million cubic metres of water. This would simplify the problem of the Huleh territory. The water could be used for irrigating 320,000 Dunam and before it reaches that level, could produce about 40,000 h.p., that is to say a bigger h.p. than is now produced in the Jordan Valley.

It is beyond doubt that a unified treatment of the whole area is an essential feature of the plan as a whole. The scheme holds valuable advantages for the area in question, and a government contribution to the cost of the canalization is therefore advisable. The risk of malaria cannot be entirely overcome, as there will always remain the danger of infiltration of *Anopheles* from other territories. But by prophylactic precautions, adaptation of the people and a hygienic standard of living this peril can be greatly reduced. The most urgent need is to close the dangerous local swamps, which breed illness.

It is in the present situation difficult to give an estimate of the cost, but the whole plan should be completed for about 933,000 LP. The technical work of development should not exceed the cost of 700,000 LP and the time needed three to five years, employing 300 to 500 workers.

Having based this study on earnest and intimate acquaintance with the situation, perhaps I may be permitted to hope for its serious consideration by the government. The plans sketched above are to be understood as the writer's original ideas, although their presentation is by no means complete.

A NOTE ON PALESTINIAN EPIGRAPHY

BY T. H. GASTER

YEIVIN'S interpretation of the Beth Shemesh ostrakon (PEQ. 1937, pp. 187-192) can be illustrated from several quarters. In offering this additional material, the present writer would make it quite clear that he does not thereby subscribe to Yeivin's conclusions. It seems advisable, however, in this initial stage of decipherment, that whatever can be said in support of any view, even when it is not one's own, should at least be submitted for consideration.

Marks over certain letters are read by Y. as numerical signs, dots being units and "commas" tens.

This can be paralleled in a curious inscription from Ras Shamra, written retrograde (SYRIA XV. 103). There, numerals seem to be indicated by combinations of verticals, circles and diamonds (v. QS. 1935, p. 137). Similar, too, are Minoan methods of numeration described by Sir Arthur Evans in *Scripta Minoa* I, p. 256, whilst the three dots on the Lachish Ewer also come into the picture. These precede the mention of three deities, and we now know from other Lachish inscriptions that they are not a word-divider, as was at first supposed.

If Y. is right, numerical notation among the Palestinian Semites is now pushed back into an antiquity hitherto unsuspected, for the newly recovered system would be the prototype of the numbers found on the Samaritan ostraca and on later Nabatæan and Palmyrene documents. In this connection, attention may be called to an excellent study of the whole subject by Solomon Gandz published in the *Proceedings of the American Academy for Jewish Research*, 1933 (pp. 54-112, with tables) under the title "Hebrew Numerals." Gandz points out that in Vth-IVth century Aramaic inscriptions (e.g., CIS ii. 113 Cooke, NSI., p. 195, from Tema; CIS ii. 146 Cooke, p. 210, Papyrus Luparensis) the units are arranged in groups of three, as also in the Babylonian and the Egyptian

systems (p. 68). A similar arrangement seems to obtain in the case of the dots on the ostracon. As for the "comma," this recalls the sign for "10" on the Samaritan ostraca, as well as on the Nabataean inscriptions. Gandz tends to connect it with the hoopsign in Egyptian.

The list of proper names accompanied by numbers finds a close parallel in several of the Ras Shamra texts, where the latter are given *in words*. Thus, Bauer No. 57 is a list of ten proper-names, each followed by a number, e.g. ḥ-m-š "five," š-l-š "three," š-m-n 'š-r-h "eighteen," &c. The Ras Shamra tablets 1929, Nos. 25 (fragmentary), 29 and 36 (a mere chip) are of the same order. Lists of similar type also appear among the documents found at Elephantine (e.g., P. 10,678, 10,974). In those texts, the numbers are often followed by abbreviations having *monetary* connotation, e.g., š="shekel," r=r-b-"quarter-shekel," &c.¹, and if the analogy of so late a parallel be admissible, this would suggest that the numbers in the Beth Shemesh ostracon do not necessarily refer to "days worked," as Y. assumes.

Among the names in the ostracon-inscription, Y. detects a certain עקאהו, in which he regards עק as the name of a deity, comparing the עקקם of a Ras Shamra text. This comparison is quite untenable. The Ras Shamra עקקם are *not* "a class of gods," as stated (p. 191). The name is given, along with that of אכלם "devourers," to certain demoniacal monsters created by El in order to lure his enemy Baal to his doom.² The word is explicable from the Arabic عَقَّ "to rend," and thus means simply "the Raveners, Renders."

Another name detected by Y. is גמען which he equates with the Aramaic גמע "sip." This is clearly a slip, for גמע means "to gulp, swallow," rather than "to sip"! The name would thus be synonymous with the Hebrew בָּלַע. Never-

¹ The abbreviation r also follows numbers in the Ras Shamra tablet, SYRIA XV. 103. It probably possesses a monetary connotation. We may perhaps cp. the Cypriot *ro*-sign on several Palestinian weights, or the Egyptian  = r on weights (PSBA. 1901, p. 383). It would mean, approximately, something like our "sterling."

² V. my translation in *Acta Orientalia* 1937, pp. 41-8.

theless, it must be admitted that this verbal element does not recur elsewhere, as far as I know, throughout the whole range of Semitic nomenclature. With the exception of H-n-n (previously recognized by Dussaud), the same observation applies to all the other names recovered by Yeivin, and this naturally renders them suspect.

With regard to H-n-n, Y. is in doubt whether this derives from rt. ḥ-n-n or from rt. ḥ-n-n. The point is surely decided, however, by comparison with such similar names as חֲנַנְיָאֵל and חֲנַנְיָה of which the Assyrian and Greek transcriptions are respectively Ananî'-el and 'Avavías showing that the initial letter is ḥ. Moreover, the root ḥ-n-n means* "to stink" (*cf.*, Arabic and Syriac, and Heb. Job, 19.17), and "Stinker" is not a proper-name given by anyone outside the third form !

I refrain for the present from offering any detailed comments on Yeivin's interpretation of the Bowl-inscription from Lachish. It seems to me almost as fantastic as my own efforts, and consequently I am very suspicious of it ! In the first place, it would appear to run counter to the *ductus litterarum*, as made out by Harding. Through the courtesy of Mr. Starkey, I have myself examined the original, and I confess that, with the best will in the world, I cannot find what Yeivin finds. The "wiggle" is curtailed by him, the seventh (or eighth) letter is given a loop which it does not possess, after it a non-existent word-divider is introduced, and two traces of lime are read as vestiges of letters. On this basis, it may be said without discourtesy, anything might be anything.

As for the proposed sense, the writer hopes to examine this in detail at a future date.

PALESTINE'S NEW LIGHTERAGE PORTS

BY HAROLD J. SHEPSTONE, F.R.G.S.

ONE of the problems confronting the British authorities when they took over the administration of Palestine from the League of Nations in 1922 was the lack of efficient harbour accommodation. Although one of the most ancient of lands Palestine's facilities for handling ships and cargo was poor in the extreme. Along its 150 miles of coast there was no harbour that provided shelter for a modern cargo or passenger steamer.

At both Haifa and Jaffa, the country's two recognized ports, the facilities for dealing with passengers and freight was decidedly out-of-date. Haifa boasted of a small jetty. Although it offered shelter for small craft, it was of little service to ocean-going vessels. The latter had to anchor half-a-mile or more off shore, lighters being employed for the transport of passengers and cargo to and from the quay. At Jaffa, the Joppa of Biblical times and the acknowledged port of Jerusalem since the days of Solomon, there was but a crude natural shelter, a few acres in extent and only a few feet deep, suitable only for small craft, lying between the shore and a ledge of jagged rocks. A narrow gap in the reef provided an entrance, calling for great skill to negotiate it with any sea running. As at Haifa, cargo and passenger vessels had to lie in the open sea, and passengers and freight to be conveyed to and from ship by lighters.

It soon became evident that something had to be done in supplying Palestine with more efficient harbour accommodation. Accordingly a deep harbour was built at Haifa at a cost of £1,250,000. It was formed by building out two breakwaters enclosing a sheltered water area of 300 acres, deep enough to take the largest vessels afloat. The harbour was officially opened in October, 1933. So rapid has been the development of Haifa and Palestine generally, that the port authorities are finding it difficult to keep pace with demands.

While it was expected that the new harbour at Haifa would

relieve some of the congestion which was being experienced at Jaffa, principally due to the phenomenal growth of the citrus industry, it soon became evident that something would have to be done to improve the shipping facilities at this ancient port. Despite the advantages afforded by the new port in the north Jaffa was still going ahead by leaps and bounds. In 1922 she was shipping about a million cases of citrus fruit. By 1936 this export trade had grown to over five million cases. In 1922 the exports from Jaffa totalled 53,000 tons and her imports 103,000 tons; by 1934 these figures had grown to 121,000 and 487,000 tons respectively.

As already stated, Jaffa had no harbour, only a small shelter formed by a belt of jagged rocks, giving protection to lighters, and a narrow quay outside the Customs House, situated in the most congested part of the old town. There was no proper facilities for handling cargo, and practically the whole of the work was done by manual labour. This jagged, rock-protected haven has now been enlarged and improved by the erection of a sea wall and breakwater. Quays have been built, and upon reclaimed ground large transit sheds, warehouses, cranes and other facilities are provided for the more rapid and efficient handling of the trade of the port. Over £200,000 has been spent on this work.

Jaffa is built on a rocky hill projecting in the form of a small cape slightly beyond the general run of the coastline. At this rocky headland the shore is protected by a reef, running almost straight from north to south. It lies just awash, about 300 to 400 feet from the shore. Between the reef and the shore lies a fair sized sheet of shallow water, capable of accommodating 200 lighters and a few small sailing craft. It is protected from any sea except one coming from between north and north-north-west—that is, almost straight down the coast. The entrance to this haven is a bare twenty yards and not easy to negotiate if there is any sea running. A rock at the entrance, about 10 feet high, has earned fame from the legend attaching to it. It is said that Andromeda was chained to it to be devoured by a great sea monster to appease the wrath of Poseidon, the God of the Sea, when, as in the story of St. George and the Dragon, she was rescued in the nick of time by Perseus.

In Hebrew times this sheltered sheet of water was not only



NEW LIGHTERAGE PORT AT JAFFA. FORMED BY BREAKWATER ON PARTIALLY SUBMERGED REEF



BUILDING THE BREAKWATER AT JAFFA



FIRST BOAT OF PROVISIONS LANDED IN JAFFA HARBOUR AFTER THE ARAB STRIKE

more commodious than it is to-day, but much better protected. Evidence would indicate that the little harbour extended further inland. This belief is based on the maritime articles dug up on the spot, such as pieces of old anchors. The ships of those days only drew a few feet of water, and could easily have made use of the shelter. But the reef to-day is very jagged and broken. In Bible times it was no doubt much more pronounced, running more evenly and standing higher in the water, thus fulfilling the role of a natural breakwater to any shipping lying within the sheltered area. The rocky barrier has been partially shattered by the continuous poundings of the heavy seas.

It is this ancient refuge used by the ships of Solomon's navy which the engineers have restored. A sea wall has been built on the reef. At its southern end the wall makes a return bend and connects with the shore south of the town. Some eleven and a half acres of land have been reclaimed within the protection of this wall. To the north the wall is prolonged along the reef to form a breakwater, the combined length of the sea wall and breakwater being about 3,500 feet. The breakwater and sea wall are built up of concrete bonded to the existing reef. The work was often hindered by rough seas. During storms considerable damage was done to temporary works, shuttering being displaced and service gantries being swept away.

The area of sheltered water enclosed by the breakwater is ten and three-quarter acres, and it has been dredged to a depth of six and a half feet. Hence the harbour is only suitable for lighters and small craft, for which permanent moorings have been laid down to accommodate some 200 of these vessels. Cargo and passenger boats have still to lie half-a-mile or so off shore in the open roadstead; freight and passengers being conveyed from ship to port and vice versa by lighters manned by Arabs. These native boatmen display wonderful seamanship in the way they manœuvre these unwieldy craft. The lighters carry from ten to fifteen tons of cargo apiece, and these little craft often handle 1,500 tons of cargo a day. They cannot operate, however, in rough seas.

Within the harbour new quays have been built and upon the reclaimed ground a transit shed capable of holding 180,000

cases of citrus fruit has been erected as well as a large inspection shed for use during the orange export season, from December to March. There are also warehouses and dump grounds, Customs House and port offices, wall and other cranes, chutes, conveyors and other mechanical devices for handling freight. Other desirable improvements have been carried out in the town itself. Its slums have been cleared away, new roads built and others widened. The work at the harbour was carried out by a firm of British engineers, Messrs. Rendel, Palmer & Tritton.

Adjoining Jaffa to the north is the new Jewish city of Tel-Aviv which, with its population of some 150,000, all Jews, is the largest city in Palestine. During the six-months Arab strike of 1936, when the Port of Jaffa was closed and the Jewish communities in Tel-Aviv and Jerusalem experienced difficulty in procuring goods from outside, permission was granted for the discharge of certain categories of goods on the seashore at Tel-Aviv. Within two days of the granting of this permission unloading began. The conditions were most primitive, and in their enthusiasm Jewish boatmen entered the sea to their waists, carrying the goods on their backs up the shore to the hastily erected Customs House.

A small wooden jetty was built out to facilitate the unloading of lighters. This was quickly found to be unsuitable for efficient service and has been replaced by a permanent steel jetty 720 feet long, and 21 feet wide, equipped with cranes and rails for the rapid handling of cargo. For several months during calm weather between 400 and 500 tons of cargo a day was landed upon the jetty, and some fifty tons of Palestinian goods shipped from it daily.

Then came the problem of providing shelters for the lighters when the weather was bad. The first idea was to run them into the mouth of the Yarkon River close by. This did not prove satisfactory, and an alternative scheme for a small port on the shore was begun. Later the Harbour and Communications Council of Tel-Aviv decided to increase this port in size to form a lighterage port similar to that at Jaffa.

The harbour which has been formed by building two long sea walls out from the shore, provides accommodation for about eighty lighters, the area of sheltered water being about

three acres. A slipway for the repair of lighters has also been provided within the harbour. The quay, which has a length of 425 feet, will permit of the loading of from 10,000 to 15,000 cases of citrus fruit a day. Upon the shore, transit shed, warehouse, Customs House and port offices have been built.

While Palestine has thus been given a deep harbour at Haifa and lighterage ports at both Jaffa and Tel-Aviv, many are of the opinion that the trade of the country warrants something more—the construction of a second deep harbour at either Jaffa or Tel-Aviv. Such an undertaking would be costly, demanding an expenditure in the neighbourhood of £2,000,000, but the idea of such a harbour is, nevertheless, under active consideration by the authorities.

REVIEWS AND PUBLICATIONS

Palestine Lands and Surveys.

THERE is a kind of melancholy interest about the Annual Report of the Department of Lands and Surveys for the year 1936. The Commissioner, Mr. F. J. Salmon, is able to show a record of excellent work done during the year in question, excellent, but much interfered with, and in some respects conditioned by, the unfortunate "disturbances." Indeed the technical side of the work of the Government in Palestine has generally been of a high order, and those who appreciate such efforts to apply science to the well-being of the population may well look forward with some apprehension to an uncertain future.

Several paragraphs of the Report deal with the management of the Haifa Harbour (reclaimed area) Estate. It is stated that an area of 130 dunums is available for development for general and commercial purposes. Certain sites are reserved for a railway station, a post-office, an hotel, parking spaces and a market. A Seamen's Institute has been built by the British Sailors' Society at a cost of £P.15,000.

It is stated that Land Settlement field work, and the hearing of cases, "was interrupted during a great part of the year by the disturbances."

The following paragraphs deserve quotation in full: "An interesting reaction of the recent disturbances occurs in the variation of land values in different parts of the country. Arab owned land in the vicinity of existing Jewish Settlements stands at a much higher price than similar land in places remote from such settlements. The present tendency is for Jewish settlers to acquire land only in the vicinity of existing settlements; that is to say that the existing settlements are being enlarged and consolidated instead of there being an increase in new isolated holdings."

"The agitation for the restriction of the sale of Arab land to Jews has led to an increase of indirect sales through

neutral intermediaries who may either receive a commission for allowing the sale to take place through them, or may actually acquire the land and sell at a profit. An instance of this is the sale of 837 dunums of land by three influential Arabs to an intermediary who sold on the same day and at the same price to a Jewish organization."

There is an interesting technical note to the effect that taking account of seasonal variations, the present surface of the Dead Sea is at an average depth, below Mean Sea Level, throughout the year, of 392 metres (1,286 feet). Kitchener in 1878 obtained the value 393.8 metres (1,291 feet), but his value would not have the same precision as the modern value.

An Air Survey, covering an area of 600 square kilometres, or 230 square miles, was carried out of the desert west of the Dead Sea, and this will be used in the preparation of the Bethlehem sheet of the 1:100,000 series. It is remarked that the Air Survey of this broken and desolate tract of country has saved much expense, and that a rigorous survey by normal methods would not have been justified.

A new map of the Old City of Jerusalem has been published on the scale of 1:2,500; this map is based upon the Survey of the Old City executed by Captain C. W. Wilson in 1864-5, and the accuracy of this seventy-year-old survey was sufficient for it to serve as a framework for the new edition. This is excellent testimony to the thoroughness of the original undertaking which led to the foundation of the Palestine Exploration Fund in June, 1865.

C. F. C.

Old Testament, Volume I. *The History and Religion of Israel.*
By W. L. WARDLE, M.A., D.D. (Clarendon Press, 4s. 6d., 1936.)

To that admirable series, the Clarendon Bible Old Testament, Dr. Wardle has prefixed a general volume, in which he deals with the history and religion of Israel. He begins by placing Israel in its setting in the Ancient East, geographically and historically. He then traces Israel's origins and development to the settlement in Canaan, the period of the Judges, the rise of the kingdom, the divided kingdom, the exile and

the return. These six chapters form a clear and well proportioned outline, with discussions on difficulties as to dating. Here it may be noticed that the conventional later date (1215 B.C.) for the Exodus is preferred to the earlier date (*c.* 1450 B.C.), now more generally held. On the other hand, the author prefers the later date for Ezra, the arguments for which are very clearly and concisely set out.

The second part of the book (eight chapters) deals with the religion, its background of animism and Canaanite beliefs and practices, its foundation by Moses, the development of Law and Prophecy, a short account of the teaching of each prophet being given. In the last two chapters, the later literature and the debt of Israel to other nations are discussed. Dr. Wardle agrees with Drs. Oesterley and Robinson, as against Dr. E. O. James, in finding traces of primitive totemism surviving in the Old Testament. He believes that the Decalogue in its simplest form goes back to Moses, instancing ancient parallels in Babylon and Egypt; and attributes to Moses a more advanced form of religion than do most modern writers. As might be expected from the author of *Israel and Babylon*, a knowledge of Babylonian customs and laws is shown throughout the book, and some interesting comparisons are made with the customs, laws and folklore of Israel.

In dealing with the prophet Ezekiel, to whom, as he says epigrammatically, "rite and right are almost synonymous," we think that he lays too much stress on the "change of emphasis, from the prophetic religion of grace to the friendly religion of ritual." After all, the priest is not only concerned with ritual; and in any case the ritual is not an end in itself—it is a means to an end. But the priest is also the pastor, and this is shown in Ezekiel's care for the individual souls of men and their relationship with God. In fact, if it is still possible to consider the Book of Ezekiel as a unity, this priest-prophet seems to teach the necessity both of personal religion and of the worship of the community—surely an advance on pure individualism. And is not the "prophetic" religion of pure grace taught in chapter xxxvi?

But this is a matter of opinion, and a small point in an excellent and useful book. The illustrations are as interesting and appropriate as we are accustomed to expect in this series.

The only misprint we have noticed is "monolater" for "monolator" on p. 150. On p. 12, Lachish is identified with Tell-el-Hesy, instead of with Tell-ed-Duweir, following modern archæologists.

E. W. H.

Children of the Wilderness. By S. GAMZU GURNEY. (Milford, 1937.)

Mrs. Gurney has written an interesting and unusual book. As a sister of Professor Garstang, she has had special opportunities of gathering first hand information about archæological discoveries; and she has employed this knowledge, as well as the fruits of wide reading, to illustrate the background of the Old Testament. In seven tales of varying epochs from 2100 B.C. to 1350 B.C., she has shown the state of civilization and religion in the Near East during that period, and the contact with them of the Hebrews. An account of the customs, buildings and worship at Ur is woven into the first tale; the second illustrates a trek from Canaan to Egypt in search of pasture; the third, Canaanite customs in Gezer and Salem, including child-sacrifice; the fourth, life in Egypt in Memphis and Zoan. In the fifth tale, the Osiris festival is vividly described; the adventures of Hebrew spies, their contact with Moabite and Canaanite, and the fall of Jericho are related in the sixth tale, while extracts from the Tell-el-Amarna letters are neatly embodied in the seventh story, together with a brilliant description of Akhnaton's Court and a sacrifice to Ra. The eighth tale, "The Unchanging Desert," gives the experiences of a present-day traveller in Trans-Jordan, and shows how many primitive habits and ways of speech have survived till the twentieth century. Each tale is prefaced by a short introduction, giving the archæological background and references in the Old Testament to the customs and ideas mentioned in the tale. The book has excellent illustrations, chosen with great care from photographs of places in Babylon, Palestine, and Egypt, of archæological finds, of Egyptian paintings and models. The frontispiece is a particularly beautiful reproduction in colour of an Egyptian wall-painting.

In his preface, the Dean of Manchester expresses the hope

that the book will be used not only in schools, but by mothers in teaching their children. For this purpose, it should prove very useful. Teachers, however, should notice a few points which are not in agreement with the present conclusions of many Old Testament scholars. The writer, rather strangely, accepts as authentic the ages of the Patriarchs as given by the late Priestly writer, and builds her chronology upon them. It should also be noticed that there is a growing tendency to date Abraham, and the period of Abraham, not in 2100 B.C. but in 1700 B.C., in relation to the Hurrian migration. On p. 2, it appears that the writer believes in a primitive monotheism, a theory which is surely against the weight of evidence. On p. 33, the Babylonian name, Abam-rama, is translated "Love the Father," and is said to refer to God the Creator. "Abu" is certainly the Babylonian word for "father," and "rama" may be connected with the Babylonian root meaning "compassion" or "mercy," but the translation and its reference are hardly convincing. These, however, are small points in an otherwise interesting and useful book.

E. W. H.

The Gates of Jerusalem. By JACQUELINE COCKBURN. (Murray, 7s. 6d., 1937.)

This book presents a vivid picture of present-day life in Jerusalem. The strife between Arab and Jew, the disparity of aim between Zionists and Chasidim, the attempts of the British to keep peace and order are illustrated by a series of episodes in the lives of typical dwellers in the Holy City. The author has evidently lived in Jerusalem and shows a special knowledge of Jewish customs. The seller of antiquities and his shop, the work of the British Police officer, the Anglican Bishop's garden-party, the Jews at the Wailing Wall, the Mohammedans during Ramadan, the Russian nuns and their pathetic benefactors, all are sketched in a really understanding and lifelike manner. Perhaps the most charming portrait is that of the little Franciscan friar. The writer shows how, though life proved to be very different from anticipation, the Jew, the Mohammedan, and the Franciscan each learnt the lesson: "Whatsoever is of the earth is fleeting and vanishes, but the Face of the Lord abides."

E. W. H.

Onomasticon of Palestine. A new method in Post-Biblical Topography. By PAUL ROMANOFF, Ph.D. With a Preface by Professor Charles C. Torrey. New York, 1937 (Reprinted from the *Proceedings of the American Academy for Jewish Research*, vol. VII).

Paul Romanoff's *Onomasticon of Palestine* is 'a booklet of less than 100 pages in 8vo. As a matter of fact, the sub-title of his work better indicates its contents and the author's own intention. What is presented here, is only a very small section of an exhaustive work on Post-Biblical topography which "covers the vast field of Rabbinic literature from the first to the thirteenth century, . . . also giving full references to Biblical, archæological and contemporary Greek and Latin sources as contained in the writings of the Early Church Fathers and historians" (pp. 2-3). In this great work the author will also include discussions on "the genealogy of the scholars of that period and throw light on the history and traditions connected with the places discussed" (*ibid.*). The present publication deals only with five names mentioned in Jewish Post-Biblical literature, the treatment of which the author wishes to submit for appreciation and criticism before embarking on the final stage of his great enterprise.

These samples, indeed, leave little doubt as to the author's vast knowledge of Post-Biblical literature throughout the ages. One can only express one's best wishes for the speedy completion of the proposed "Onomasticon." Elsewhere I have recently emphasized the need for classified and handy editions of all kinds of texts containing topographical material of ancient Palestine and the adjacent countries. Romanoff's *Onomasticon* would meet the case for an important and exceedingly complex category of such texts.

The author's claim to present here "a new method in Post-Biblical Topography" is open to challenge. His treatment of the material does not seem to be essentially different from the method adopted by all former students of the subject. The outstanding advantage of his "Onomasticon" will be that for the first time it presents an exhaustive collection of the respective texts and a reasoned discussion of all changes and variants with which the topographical names appear in various editions and manuscripts of Post-Biblical writings. In the five

examples discussed little can be seen of the author's intention to give also full references to Biblical, archæological and other sources. It may perhaps be added that strict limitation to one category of texts would even be more commendable. The utmost care should also be given to a more surveyable presentation of the material, for instance by a clear typographical distinction of paragraphs and, if possible by insertion of special headings or marginal titles. Discussions on the genealogy of Jewish scholars, based on the author's topographical results, are undoubtedly interesting in themselves, but appear somewhat out of place in a topographical "Onomasticon."

In conclusion I should like fully to endorse Professor C. C. Torrey's suggestion (p. 6, n. 1) that like every other Onomasticon this great work should take the form of an Index of topographical names mentioned in Post-Biblical Jewish literature, with their variant readings and changes. The author's own views on location and identification may conveniently be given in a second column or in a special part of the book so as to avoid mixing up the objective presentation of the material with the author's personal and to a certain extent necessarily subjective views. In this way the learned writer will undoubtedly render a singular service to all students of ancient Palestinian topography unable to survey and to check this great mass of literature.

The Hague (Holland).

J. SIMONS.

We are indebted to Mr. A. F. Brazenor, Hon. Consulting Naturalist to the Booth Museum, Brighton, for kindly identifying and furnishing the following list of a case of birds from Palestine which is exhibited in the vestibule at No. 2 Hinde Street.

The birds form part of a collection made by the late Mr. George Armstrong in 1873-4, when employed on the Survey of W. Palestine, a list of which, compiled by the late Canon Tristram, appears in Q.S. 1876, page 200. Unfortunately, they were mounted in a sealed case without labels which made identification difficult to the non-expert. With Mr. Brazenor's list and a corresponding diagram, this difficulty is overcome.

Corn Bunting : *Emberiza miliaria*
 Blue-throated Warbler : *Cyanecula suecica*
 Goldfinch : *Carduelis elegans*
 Stone-chat : *Pratincola rubicola*
 Swallow : *Hirundo rustica*
 Roller : *Coracias garrula*
 Great-Tit : *Parus major*
 Blue Rock-Thrush : *Monticola cyanus*
 Hoopoe : *Upupa epops*
 Little Owl : *Athene persica*
 Nightjar : *Caprimulgus europaeus*
 Starling : *Sternus vulgaris*
 Dove : *Turtur auritus*
 Bee-eater : *Merops apiaster*
 Kingfisher : *Alcedo isipda*
 Grey Kingfisher : *Ceryle rudis*
 Sparrow Hawk : *Accipiter nisus*
 Long-eared Owl : *Strix otus*
 Great-spotted Cuckoo : *Oxylophus glandarius*

Great Grey Shrike : *Lanius sp.*
 Sand Grouse : *Pterocles arenarius*
 Partridge : *Caccabis saxatilis*
 Partridge : *Ammoperdix heyi*
 Grey Wagtail (immature) : *Motacilla melanocephala*
 Pied Wagtail (immature) : *Motacilla lugubris*
 Squacco Heron : *Buphus ralloides*
 Water Rail : *Rallus aquaticus*
 Little Bittern : *Ardetta minuta*
 Dunlin : *Tringa alpina*
 Sandpiper : *Tringoides hypoleucus*
 Ringed Plover : *Egialitis hiaticula*
 Redstart : *Ruticilla phoenicurus*
 Bulbul : *Ixus xanthopygius*
 Sun-bird : *Nectarinia oseeae*
 Orange-winged Grackle : *Amydryus tristramii*
 Halcyon : *Halcyon smyrnensis*

The Committee have to acknowledge with thanks the following :

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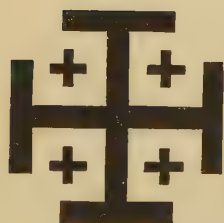
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PALESTINE EXPLORATION QUARTERLY

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